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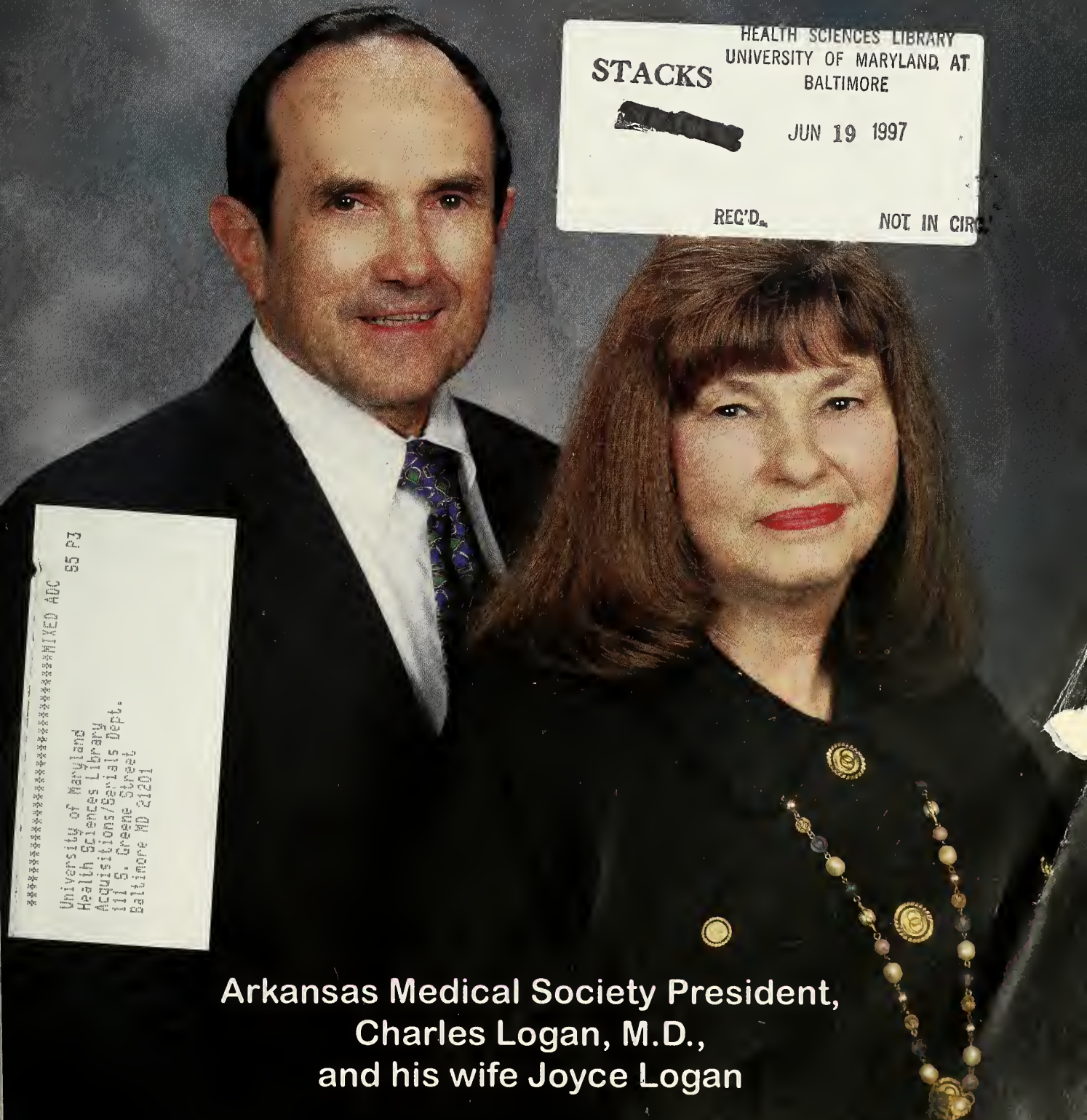
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THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Volume 94 Number 1

June 1997



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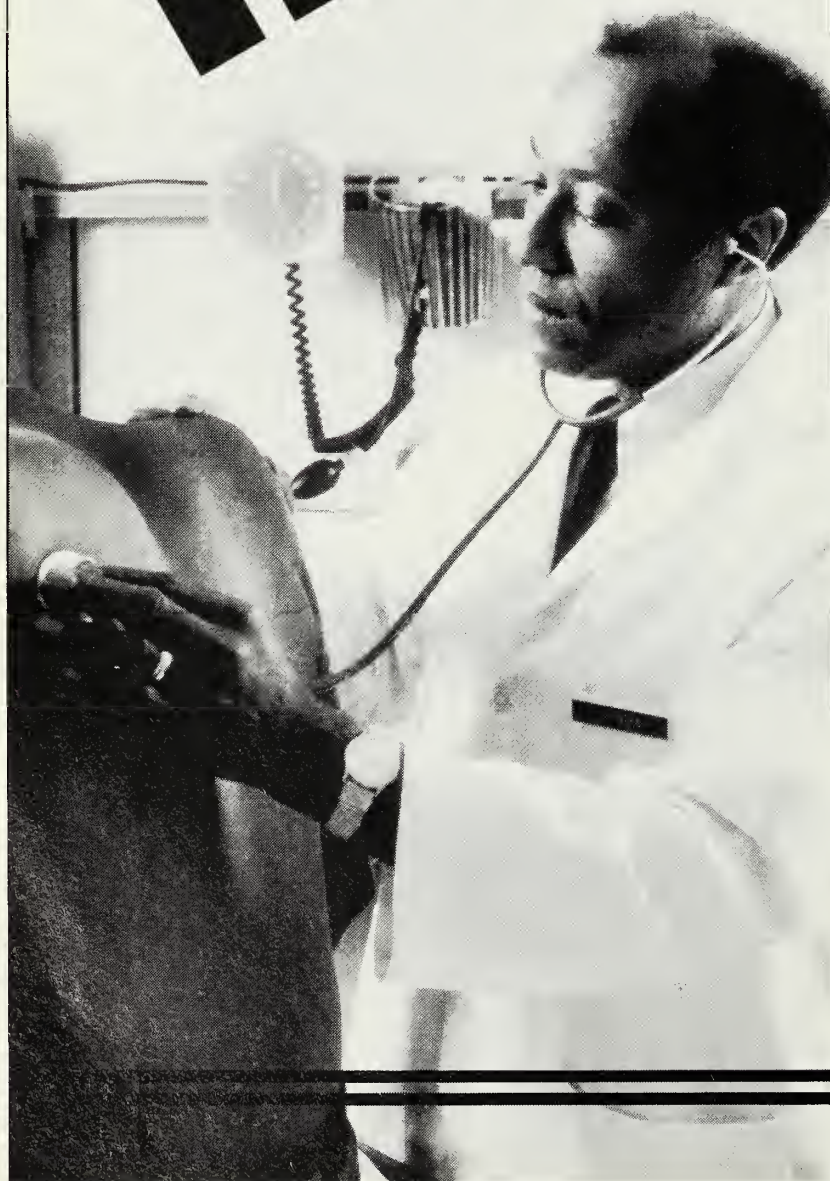
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Cover photograph taken by Franklin Washburn Photography in Little Rock. Annual Session photographs taken by Steve Asmussen of Little Rock. Photographs of Golf Tournament taken by David Wroten, AMS Assistant Executive Vice President.

Health Care Access Foundation

As of May 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 12,585 medically indigent persons, received 23,881 applications and enrolled 46,463 persons. This program has 1,754 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Fingerstick Devices May Spread Hepatitis B

Three hepatitis B outbreaks last year illustrate the transmission dangers of the spring-loaded fingerstick devices commonly used in hospitals and clinics.

In the first, eleven residents of an Ohio nursing home were diagnosed with hepatitis B virus. All acute infections occurred in diabetics, with an attack rate of 53% in those who routinely underwent fingerstick blood glucose monitoring and 0% in those who did not. Investigators determined that while the lancets in the devices were always changed between patients, the end caps resting on patients' fingers were not. They hypothesize that blood contamination of these caps spread hepatitis among patients.

In a New York hospital, 3 diabetic patients were diagnosed with hepatitis B after being on a ward with a patient with diabetes and hepatitis B, and an additional 11 infected patients were identified based on hospital serological records. Eight of these 11 occupied the same two wards; 7 had the same rare subtype of the virus. Nurses routinely changed fingerstick lancets and end caps between patients, but not gloves, and they also stored used and unused end caps together. One or both of these practices transmitted hepatitis B.

Comment: These reports underscore how easily hepatitis B can be spread, even by objects without sharp edges. Especially when used in a hospital setting, multi-use fingerstick devices mandate meticulous infection control techniques.-A Zuger

Nosocomial hepatitis B virus infection associated with reusable fingerstick blood sampling devices-Ohio and New York City, 1996. MMWR 1997 Mar 14; 46:21 7-21.

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Duration of Tick Attachment Predicts Lyme Risk

The summer brings physicians an onslaught of tick-related questions, especially in Lyme-endemic areas where antibiotic prophylaxis is sometimes insti-

tuted after a bite. This study may help estimate the risk for Lyme disease in susceptible patients and determine if prophylaxis is warranted.

Researchers studied 119 nymphal and adult deer ticks submitted by 115 residents of Long Island (a Lyme-endemic area) after a bite. The duration of attachment was estimated in 109 ticks by determining the degree of blood engorgement. PCR for *Borellia burgdorferii* was also performed on the tick gut contents. Meanwhile, participating humans were followed for development of Lyme disease.

Only four cases of Lyme disease were diagnosed; three were from the 15 ticks that had been attached for more than 72 hours, for a risk of 20% in this subgroup of bites. PCR proved unhelpful in predicting disease. Interestingly, less than half the victims could accurately estimate the duration of their bite.

Comment: This study confirms that most cases of Lyme disease result from tickbites of long duration. People with such bites make a logical subgroup for antibiotic prophylaxis in Lyme-endemic areas, but the inaccuracy of recall suggests that formal tick analysis may be a necessary part of the decision-making process as well.-A Zuger

Sood SK et al. Duration of tick attachment as a predictor of the risk of Lyme disease in an area in which Lyme disease is endemic. J Infect Dis 1997 Apr; 175:996-9.

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National Market Trends

The following information is provided by the AMA FED-NET, May 7, 1997.

*The New York Times reports that some of the largest HMOs are among the most delinquent in paying physicians and hospitals, creating myriad problems for providers and patients. For example, Oxford Health Plans was 94 days behind in payment at the end of 1996, United Healthcare 77 days behind, and Humana, Inc. 71 days behind. Some observers have noted that regardless of whether the delay is intentional or unavoidable, these large HMOs can pocket hundreds of thousands of dollars a day by collecting interest on this "float." (New York Times, April 17, 1997)

*Oxford Health Plans has announced a new approach to providing specialty care for chronic conditions. Under the plan, a team of physicians are paid a fixed rate for the management of certain conditions, and patients are assigned to a single service representative

to help them handle all their inquiries. Payments are made in stages that are keyed to things such as reports from patients on how well they are doing after a medical procedure. Oxford will also gather data on how soon patients return to work after treatment by a specific physician, and this information will be compiled into report cards. Oxford has formed nine advisory panels made up of specialists from major academic medical centers to set parameters for more than 20 ailments. (Wall Street Journal, March 25, 1997; USA Today, March 25, 1997)

*MedPartners continues its expansion strategy, this time through an agreement with California-based Tenet Healthcare Corporation to form a provider network to serve major markets in Southern California. Thirty-three Tenet hospitals in Southern California and over 4,000 physicians managed by MedPartners will be placed under one contract. Tenet will also acquire MedPartner's 99-bed Pioneer Hospital in Artesia. Officials from both companies contend that the agreements will benefit patients by providing a coordinated delivery system. The agreement is the first in what the companies expect will be similar transactions in California and elsewhere. (Modern Healthcare, April 14, 1997)

*The Loma Linda (CA) University Medical Center has purchased a minority stake (just under 20%) in PrimeCare International, a physician practice management company with an aggressive acquisition strategy. PrimeCare intends to use the capital infusion to finance more acquisitions. The deal is unique in that it pairs the not-for-profit Loma Linda, renowned worldwide for its transplant program, with a for-profit company with plans to go public in the near future. Apparently Loma Linda has been seeking a replacement for its unsuccessful arrangement with Friendly Hills Medical Group established in the early 1990s, and PrimeCare has been seeking capital. (Modern Healthcare, April 7, 1997)

*Aetna U.S. Healthcare has announced that it will pay primary care physicians to train New York Medical College students in the principles of primary care medicine, patient education, prevention, and teamwork. The payment will be built into the per-member-per-month rate. The physicians will be required to attend a one-day faculty development program. (Modern Healthcare, April 7, 1997)

*The California Public Employees Retirement System (CalPERS) has agreed to the first rate increase in five years for the 11 HMOs with which it contracts. CALPERS' agreement to an average increase of 2.7% was cited by some as an indication that HMOs could not hold price down indefinitely while sustaining quality care. (Wall Street Journal, April 16, 1997)

*A study by Kaiser Permanente of Colorado found

that low-income, previously uninsured patients who enroll in an HMO exhibit utilization patterns similar to a commercial population. However, the previously uninsured were 30% more likely to have an outpatient visit, and 51% more likely to have a specialty visit, with ophthalmology and optometry accounting for almost one-third of those visits. The authors attributed this to "worse self-perceived health status." In general, the authors said that the study did not support the hypothesis of a greater pent-up demand for services among previously uninsured individuals at the beginning of their HMO enrollment. (Journal of American Medical Association, April 2, 1997)

CORRECTION NOTICE

In the May 1997 issue of *The Journal of the Arkansas Medical Society* (Volume 93, Number 12) there was an error in the *New Member Profile* on page 581. Dr. George T. Gray, III - the physician profiled - was identified as an M.D. rather than a D.O. *The Journal* regrets this error and hopes the error causes no inconveniences.



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AMS Newsmakers

Dr. Robert L. Archer of the Muscular Dystrophy Association's clinic in Little Rock was recently named among "America's Best Doctors" in a prestigious nationwide guide. He is listed for his expertise in neurology in the guide that is annually prepared by Worldwide Medical Information Services and published by Woodward/White Inc. Doctors qualify for inclusion based on survey responses by some 35,000 physicians who were asked to rank the clinical abilities of their peers by answering the following question: "If a friend or loved one came to you with a medical problem in your field of expertise, and for some reason you could not handle the case, to whom would you send them?"

Dr. Harry P. Ward, UAMS chancellor since 1979, was recently honored as the 1997 Arkansas Citizen of the Year. The tribute was hosted by the Arkansas March of Dimes and the award was presented to Ward by Gov. Mike Huckabee.

The Benton County Medical Society recently elected **Dr. Mario Costaldi**, a general surgeon, as president and **Dr. John Huskins**, a family practitioner, as secretary-treasurer. In addition, **Dr. J. Thomas Turley**, a urologist, was appointed counselor representing the district. All three physicians are of Rogers.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:

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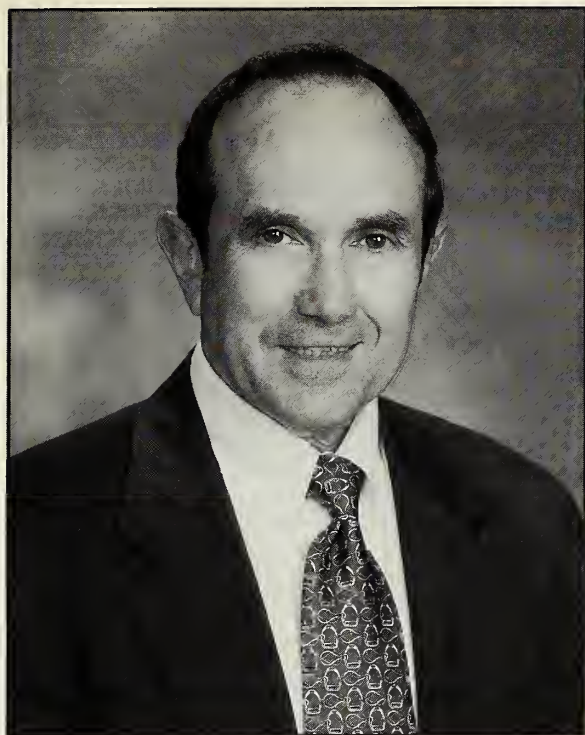
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AMS 1997-1998 President Profile

Charles Logan, M.D.

Charles Logan, M.D., a Little Rock urologist, was installed as president of the Arkansas Medical Society during the 121st Annual Session at the Arlington Hotel in Hot Springs on Friday, May 2, 1997.

Dr. Logan has been in practice at Arkansas Urology Associates since 1967. He earned his bachelor of science degree in 1956 from Southern Methodist University and his medical degree from Vanderbilt University School of Medicine in 1960. Dr. Logan then went on to Cornell Medical Center in New York for an internship in surgery. He then completed a surgical residency and a urology residency at Baylor University College of Medicine in Houston, Texas. He was certified by the American Board of Urology in 1969. Additionally, he provided medical services while in the U.S. Army during the Vietnam War.

Dr. Logan is affiliated with St. Vincent Infirmary Medical Center, where he is currently serving as Vice Chief of Urology; Columbia Doctors Hospital, currently serving as Chief of Urology; Baptist Medical Center; Baptist Rehabilitation Institute; Arkansas Children's Hospital; Southwest Hospital; and the University of Arkansas Medical Center, currently as Clinical Associate Professor in the Department of Urology.

Dr. Logan has been a member of the AMS since 1967. In those 30 years, he has served in numerous positions for the organization including Pulaski County Councilor, and Chairman of the Council, Pension Plan Board of Trustees and Nominating Committee. Additionally, he has served on the Medical Business Coalition, Public Relations Committee and Executive Committee.

Dr. Logan is currently a section representative for Arkansas on the Health Policy Council for the American Urological Association and volunteer board member of the Visiting Nurses Association. He is a member of various professional organizations including the American Board of Urology, American Medical Association, Pulaski County Medical Society, American Association of Pediatric Urology, Arkansas State Urological Society, American College of Surgeons, American Urological Association and American Association of Clinical Urologists. Among many other positions for the organizations mentioned above, he has served as president of the Pulaski County Medical Society, the Arkansas Chapter of the American College of Surgeons and the Arkansas Urological Society. He is also a member of the Little Rock Rotary Club.

Dr. Logan and his wife, Joyce, have three children - one daughter and two sons. They are both active members of the St. James United Methodist Church.

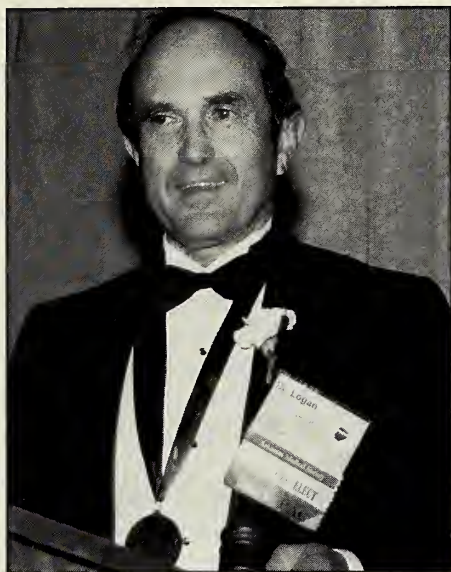
Dr. Logan takes his oath of office with Dr. Crenshaw at his side.



Dr. Crenshaw arranges Dr. Logan's collar after placing the President's Medallion around his neck.

AMS Past Presidents congratulate Dr. Logan.





Inaugural Address Ethics in the Third Millennium

Charles Logan, M.D.
President 1997-1998

I am honored to be chosen as President of the Arkansas Medical Society. I am pleased to accept the challenge you have bestowed upon me. It is my intention to continue the pro-active course developed under the able leadership of Dr. John Crenshaw this past year. My fellow officers, the Council of the Arkansas Medical Society and I are united in our resolve to advance the ideals of the medical profession and to pursue excellence in the practice of medicine in the state of Arkansas.

I remind you, the Arkansas Medical Society is a democracy. Your voice is as important as that of the leadership. I encourage you to let us know your problems and share your views and observations with us in regard to the amelioration of our difficulties and the enhancement of our strengths.

In these uncertain and evolving times, we as a group of dedicated diverse clinicians must meet the challenges that now face us as a medical society. I feel privileged to be chosen to guide this process for the coming year and shall give myself to the challenge to the limit of my ability.

As your President, I am preparing to advance our society toward the third millennium on two fronts. The first is communications. At the opening session of the House of Delegates yesterday our new web page was introduced. It is my intention, with the help of our outstanding staff, to develop this state of the art concept in communication to its fullest extent. Those who currently have access to computers will be able to access the web page. For those without computer experience, we are planning computer training courses

over the next year. This training will provide members with a level of expertise to access the AMS web page and have an E-mail address for sending and receiving communications. This is a challenge I feel we must meet to be ready to enter the next century.

The second front will be one of philosophy. The practice of medicine is undergoing enormous change and I feel needs to maintain and nourish certain ethical standards to survive as a profession. There are those who feel medical services should be sold as a commodity and protected only by a legal contract. Allocation of resources and funds for patient care would be prescribed based on a business in which bottom line, stock values and corporate welfare dominate. I believe it is time to re-examine historical ethical tradition. All professions have a responsibility for service to the people. Society grants privileges to a profession and in turn restricts practice to its members. The profession is expected to maintain standards and develop a code of ethics based on service to mankind.

There are 3 levels of professional ethical behavior that we must embrace. First, there is legal ethical behavior. Professional ethics demand observation of the laws of the land. Examples of this type of legally based ethic are our licensure, prohibition against discrimination, protection of patients from experimentation and the law of torts and contracts.

The second form of professional ethical behavior is duty based. In today's morally relaxed world, new professional practices pit altruism against self interest. Most of these activities are not illegal or immoral in a right duty based ethic, but they are not consistent

with the higher levels of morality that a virtue based ethic demands. Examples may include relaxed indications for diagnostic and surgical procedures, lack of availability to one's patients, patenting surgical and diagnostic technology and practicing primarily for financial gain. Exploitation of the sick is indefensible in medical practice.

The third form of professional ethical behavior is virtue based. Virtue based ethics do not fluctuate with what the prevailing social morality will accept or tolerate. Medicine calls for a more intensive practice of virtue than most any other profession. This to me is what separates us into the profession of medicine rather than the business of medicine.

Ethics Defined

Ethics is a term that we seem to understand by its very inference, but find very difficult to define in words. Ethics - like good medical care - is difficult to define, but easily recognized when seen.

In our rapid, fast-paced modern world of almost instant communication and vast knowledge, we are confronted with the assessment of the ethics of our personal and societal activities on a daily basis. No segment of society escapes scrutiny. Our newspapers, magazines, televisions and radios have in-depth coverage of community and personal ethics from the Halls of Congress to our local hospitals. Ethical behavior has become a part of daily life in our society.

Ignorance, mental lapses and outright disregard of ethical behavior often have severe consequences and dramatic implications. Ethical behavior of our leaders, President, Congress, Governor and, yes, our profession are drawing scrutiny and evolving opinions as we speak today.

A failure in the ethical arena can be near suicidal to a personal career or profession. What is this ethic? Is it no more than societal opinion? Where and when did it arrive on the scene, and what makes certain behaviors unacceptable to our society? Congressman J.C. Watts in responding to President Clinton's State of the Union Address in January of this year stated the following: "I was taught to respect everyone for the simple reason that we are all God's children. I was taught in the words of Dr. Martin Luther King, Jr. and from my uncle, Wade Watts, to judge a man not by the color of his skin, but by the content of his character. I was taught that character does count and that character is simply doing what's right when nobody's looking."

Medicine is a moral community. Rules, principles and character traits define a moral life consistent with the goals and purposes of medicine. For centuries, the character of the physician and virtue ethics provided the conceptional foundation for professional behavior. In modern times, virtue has often been supplanted by

principle and rule based ethics. Let us examine the concept of virtue - its transformations in the post medieval and modern periods and its re-emergence most recently in general and medical ethics.

The priest physicians in ancient Egypt and ancient Greece enjoyed the highest status in society, not only because of education, talent and skill, but because they were persons willing to sacrifice themselves for the welfare of their patients. This humanistic attitude - carried through successive generations of physicians such as Hippocrates, Galen and Osler - gave the profession honor for its dedication and self sacrifice.

Ethics of rights and duties spell out the obligations beyond which law defines. Here, benevolence and beneficence take on more than their legal meaning. The ideal of service is responsiveness to the special needs of those who are ill with compassion, kindness and specific obligations like confidentiality and autonomy.

Virtue ethics go beyond this level to the highest level of ethic. The virtue ethic implies a character trait, disposition and habitual moral to seek perfection. A virtuous person is someone we can trust to act habitually in a good way. He is committed to being a good person in the pursuit of perfection in his private, professional and communal life. He is someone who will act appropriately even when there is no one to applaud. One expects the virtuous person to do right and good even at the expense of personal sacrifice and self interest. Likewise, the virtuous physician is one so habitually disposed to act in the patient's interest that he can reliably be expected to do so.

Dr. Eugene Carlton, as President of the American Urological Association, expressed the belief that without such virtuous persons, no system of general ethics could succeed and no system of professional ethics could transcend the dangers of self interest. That is why, even while rights, duties and obligations may be emphasized, the concept of virtue ethics has hovered over the medical profession. The ethical physician's dispositions are ordered in accord with that "right reason" which both Aristotle and Aquinas considered essential to virtue. The practice of medicine involves a trust in a highly confidential inner personal relationship which requires personal integrity of the highest order. This trust relationship defines the difference between duty based ethics and virtue based ethics.

Ancient History

The history of the concept of virtue according to the writings of Dr. Edmund Pellegrino may be divided into 4 periods: 1) The classic medieval period in which virtues were central to all moral philosophies; 2) The post medieval and modern periods when virtue remained important but was re-shaped by the emergence of new systems of moral philosophy; 3) The post posi-

tivist analytical period when virtue ethic was in decline along with much of traditional normative ethics, and 4) The present period of resuscitation of virtue as a basis for morality.

In the classical period of ethical behavior, Socrates, Plato and Aristotle prevailed in their philosophy. Virtue and individual virtues were essential to being a good person and living the good life. The potentials in human nature and virtue enabled human beings to fulfill the goals in life. Virtues could be discovered by reason and were under the guidance of reason in their operation.

The concept of virtue originated in the western world with the Greek philosophers. The Sophists prepared the way for the conceptions of Plato and Aristotle. They believed that virtue could be taught to any man and that virtues were essential for the exercise of power. For the Sophists, virtues were a product of reason alone. It was Socrates who posted the fundamental question about virtue, with which moral philosophy has wrestled over ever since. Socrates has Meno say, "Can you tell me Socrates, whether virtue is acquired by teaching or practice, or if by neither teaching or practice, whether it comes to us by nature or by some other way?" Tantalizingly, Socrates did not answer these questions, and they haunt us today. Plato stated that virtue was knowledge of the good for humans. If man did not act well, it was because of ignorance. No one would seek evil, except through ignorance of good. Wisdom through goddess Sophia became the virtue par excellence. Plato, in early dialogues emphasized personal virtue and in later dialogues the kind of society in which a good person could flourish. Plato, seemingly neglects feelings, passions and emotion. The good is considered as so attractive that vice can only mean that the good has not been recognized as such by man. Plato's concern was to develop a general theory of virtue. He enumerated the cardinal virtues - fortitude, temperance, justice and wisdom. He did not see ethics as a practical science the way Aristotle did. Aristotle warns of the deception of general theory in the writings *Magna Moria* and points out the omission of Socrates' theory of a place of emotion. For Aristotle, the aim of ethics is practical - to be good, to act well. Aristotle describes virtues as a state of character. The excellence of human beings is a state of character, which makes a person good and makes a person do his or her work well. The acts of a virtuous person proceed from three things: a knowledge of good in any action, the choice of good for its own sake, and the source of knowledge and choice in a good character. It is the trait of a good character that ensures that the right and good will not only be recognized, but also chosen. Virtue for Aristotle is a habitual disposition to act well. He felt that virtue could be taught by training and practice. Aristotle di-

vided virtues into intellectual and moral. The intellectual virtues were art, science, intuition, reasoning and practical wisdom. They are related to the life of reason. There are other virtues appropriate to moral life, the moral virtues of temperance, justice, fortitude and prudence.

Equally influential with Aristotle and Plato and classical and medieval conceptions of virtue are thinkers in the early, middle and late Stoa. During its 500 year history, stoicism exerted major influence on the ethics of virtue. It shaped the ethics of the Hellenistic world and became the dominant moral philosophy of educated Romans. It influenced early development of Christian ethics and inspired the idea of educated gentleman of the 18th century. The professional ethics of stoic medical writers added elements of compassion and humanism to the Hippocratic medical ethos. The key virtues were wisdom, courage, temperance and justice. Similar cardinal virtues were taught by Plato and Aristotle. Suffice it to say, at this point, that the interrelationships of these early philosophers laid the groundwork for the next major exemplification of the virtue ethic, the ethics of Thomas Aquinas, which occurred in the Middle Ages.

In the medieval period, the classical idea of virtue was redefined by reconciling it with the virtue or ethic of the Christian gospels. The major figure in this reconciliation was Thomas Aquinas. Aquinas accepted the classical virtues as defined by Plato and Aristotle, but gave special place to practical wisdom and prudence. Prudence bridged the gap between the moral and intellectual virtues. It is the virtue that disposes the reason to fit the "good end" to an act. Virtue, thus, disposes one to integrate right intentions, right thinking and right acting. Prudence has particular pertinence as the intention in medical ethics since the ultimate end of human existence is spiritual. Aquinas taught that natural virtues need to be complemented by supernatural virtues - faith, hope and charity.

In the post medieval transformation, the concept of virtue underwent dramatic changes, and so did its place in moral philosophy as the prior philosophies were repeatedly challenged. Forces operating in Kant's respect for person and Bentham and Mills utility established the idea of a principle based ethic as distinguished from traditional emphasis on virtue. Ethics were set on a road of emphasis on the act more than on the agent. Even though in Kant's case, intention was paramount in moral acts and, therefore, resided in the agent. This area was followed by a period of anti-virtuous thinking. Machiavelli's form of anti-virtue thinking has a powerful appeal today because it asserts the difficulty of survival in a competitive society that lives by rules of nonvirtue. Machiavelli advised his prince not to worry about the natural or the Christian virtues when it comes to exercise of power.

The security and well being of the State were the prince's concern, and he should be cruel and magnanimous if the occasion demanded. Machiavelli's cynicism about the survival value of virtue has a special appeal to many today, even in the professions that have traditionally made obeisance to virtue - like medicine, law and ministry. Physicians and lawyers are increasingly of the opinion that virtue and ethics are fine ideals but they are impossible to follow in a competitive free-market, bureaucratized society. Some, like Adam Smith, felt that if we could free the creative energies of self-interest, all would benefit.

Following this anti-virtue period, there has been a contemporary revival of virtue. Given all the transitions and diverging definitions of virtue, which concept shall we use in our inquiry into the place of virtues in medical ethics? Without arguing merits and demerits of each definition, we will offer the classical definitions of Aristotle and Thomas Aquinas. The history of the interrelationship between classical Greek philosophy, stoical ethics, medieval thought and modern ideas about ethics is fascinating. The differences, the similarities and the concepts of virtue propounded by these world views shaped the concept of virtue that emerged. Virtue and medical practice must be coupled with principle based ethics. The lesson to be learned from this experience is that all individuals must be treated as ends in themselves. The evils of wartime triage should not become ordinary accepted ethical practice. Let us examine several of the medical virtues seen in a medical relationship. Compassion is the virtue of special importance in a medical relationship. It is the capacity of the physician to feel something of the unique predicament of the patient, to enter into the patient's experience of illness, and, as a result, to suffer vicariously the patient's anxiety, pain, fear and so on. Intellectual honesty is another example.

Always disclose accurately to your patient and colleagues the extent of your knowledge and ignorance. Intellectual honesty can, in part, at least be assessed from actions alone. Yet, we could not be honest unless we possess the virtue of honesty.

The habitual disposition not to deceive but to move positively to reveal what we know and do not know about the clinical situation, that is diagnosis, treatment, prognosis, etc., is critical to a trusting physician-patient relationship. Benevolence is a virtue that need not necessarily be linked to beneficence. One might wish to harm a patient whom one does not like, one who is abusive or one who is physically threatening. The doctor would be beneficent toward such a patient because of fear of retribution, a lawsuit or loss of reputation - none of which are worthy motives. The virtue of benevolence would be absent but the principle of beneficence would nonetheless be respected, at least in the objective sense. The same might apply with re-

spect for justice, temperance and so on. The formal linkage of virtue and principles has been explored by several writers. Virtue and principle can be linked together by mediation, substitution or just tacked on by first determining the moral rightness of an act using one of several moral theories. In the long run, whether or not a conceptual link can be established between principle, duty and virtue is not as important as recognition that the character of the physician is an irreducible factor in a healing relationship. How he or she interprets the moral principle, selects the values that will predominate and shape self interest will be more important than how the moral principles were formulated and described.

Christian Ethics

Ethical behavior is the life blood of the medical profession, truly elevating the science and works of medicine to the level of an honored profession. The original Greek concepts of ethics involved pagan Gods. In more modern times, Judaism, Islam and Christianity have been woven into the ethical fabric. In a Christian perspective of ethics, the Bible provides a road map for the journey. In the Old Testament, Moses gave us the Ten Commandments. Dr. Jack Wilson, our minister, has highlighted in the New Testament the biblical roads that one may follow in life. I have utilized these roads as a biblical road map to a medical career.

The decision to pursue a career in medicine is a road filled with emotional idealism and founded in the Christian ethic to care for those unfortunate to experience injury or illness. Let me explore with you briefly the journeys from a Christian perspective that may be woven into the physician ethic.

We begin our journey on the Damascus Road. It represents the road for conversion to an idealistic career committed to an extensive period of learning and training. In the Book of Acts we read, "Saul still breathing threats of murder against the disciples of the Lord journeyed to Damascus (in those days a week's journey) to bring back to Jerusalem for trial, Jewish persons who had began to follow Jesus." As Saul approached Damascus, he encountered Jesus and was converted to a new life with a new name, Paul, and a new ethic of behavior.

For just as Paul received the conversion to Christianity on the Damascus Road, a young student of medicine must convert his lifestyle and accept the ethical principles and responsibilities of a medical career.

Next we travel the Jerusalem Road. It is the road of commitment. In Luke we read, "As Jesus traveled the road to Jerusalem when the days drew near for him to be received up, he set his face to go to Jerusalem." Jesus knew of his impending arrest, trial and sentence to the cross, but remained committed to his

destiny. Dr. Nathan Davis, one of the founders of the AMA in 1847, helped establish the code of ethics adopted by the House of Medicine, and commitment was the pillar of this code. A physician was expected to care for patients at no concern for personal risks, even in an epidemic, and regardless of the patient's ability to pay. It is commitment walking the Jerusalem Road that is part of the ethical foundation for a medical career.

Now we travel the uncertain road to Jericho. It is the road of compassion. The Jericho Road near Jerusalem was a crooked trail descending the green hills around Jerusalem to the desert wilderness. It was surrounded by caves and boulders, a likely place for ambushes and robbers. In Luke, the story is told of a man of Jericho Road who fell among robbers and thieves and was beaten and left to die. Two people, a Levite and a Priest, passed him by and didn't get involved. The most unlikely to help, a Samaritan, showed compassion and carried him to safety and care. We have multiple opportunities each day for compassion. We are often placed in circumstances where failing to get involved or passing critical judgment and avoiding compassion can be dramatically detrimental. Whereas, compassion may be very rewarding. Care of AIDS patients, teenagers on drugs, nursing home patients and victims of crime offer a few striking examples. Compassion is at the heart of the medical ethic, and the Jericho Road is one journey we must all travel for a successful medical career.

Next we travel the Emmaus Road, the road of companionship. Two disciples traveling to Emmaus about 7 miles from Jerusalem met a stranger. They walked and talked, and in the course of time eventually came to know that the stranger was Jesus. Their lives were never again the same.

In medicine, we must extend professional companionship to those in distress and accept the professional companionship of our teachers and colleagues to expand the limits of care for our patients. We can never journey alone on the Emmaus Road, the road of companionship.

Thus, we see from a Christian perspective, one may find within the scripture ethical road maps for a medical career. As we successfully travel the road to Damascus, Jerusalem, Jericho and Emmaus we achieve conversion to the medical ethic, commitment to the profession and our patients, compassion for those who are ill and downtrodden and professional companionship for our patients and colleagues.

AMA & Ethics - 150 Year History

A symposium commemorating the 150th anniversary of the American Medical Association and its 1847 Code of Ethics was held earlier this year in Philadelphia.

The historic two-day AMA conference entitled

"Ethics and American Medicine - History, Change and Challenge" provided a good opportunity to trace the evolution of the code and examine its significance in guiding our medical profession through a myriad of ethical challenges.

AMA physicians gathered in Philadelphia in 1847, led by Dr. Nathan Davis. One of the first orders of business at the inaugural AMA meeting 150 years ago was to develop a medical code of ethics. Dr. Robert Baker, Professor of Philosophy from Union College and an expert on the history of medical ethics, explains that in 1847 there were no licensing standards, no educational standards and no ethical standards. A committee, including Drs. Nathan Davis, Isaac Hayes and John Bell, as well as others, established a committee in 1845 in New York City to develop the code of ethics, which was then presented at the AMA's first meeting in 1847. Even in those early times, physicians decided to take a stand against greed, quackery, poor educational standards and unprincipled behavior. These issues threatened the very fabric of the medical profession in those historic times. Over the course of three days in 1847, some 250 delegates, 40 medical societies, and representatives of 28 colleges from 22 states hammered out the AMA's first code of medical ethics. The code was based on the works of Hippocrates with modifications by Thomas Percival. This national medical association developed a code of medical ethics which included the following:

1. A physician must answer to a patient's call. A physician must treat patients humanely, and a physician must keep patients' history confidential.

2. Doctors must relate and teach other physicians their knowledge of medicine.

3. Physicians have a responsibility to educate the public and to treat patients, even if there is risk to the physician himself in such societal problems as epidemics of cholera, influenza and smallpox.

4. The physician must treat patients regardless of their ability to pay.

5. Patents were not allowed for medical procedures and no advertisements were permitted.

These principles were distributed widely in communities throughout the country. The very strict code of medical ethics was accepted by physicians and received enthusiastically by the public. Over the ensuing 75 years, because of the strict ethical standards, the medical practice experienced a steady rise in popularity as an accepted, honored profession.

Since 1900, multiple challenges have tarnished the ethical image. The technology revolution, research, specialty societies and most damaging, the post World War II Nuremberg trials of Nazi German physicians who performed human experiments further eroded the medical ethical image.

More recent challenges have come from the legal

ethical dilemmas. Some of the following concerns have been addressed, while others continue to be debated as we seek answers for ethical solutions.

1. One of the major concerns over the last 50 years has been medicine's effort to define exactly what is death?

2. In the era when chronic kidney dialysis sprang up on the medical scene, everyone was concerned as to who would decide which patients would receive the chronic dialysis. Committees were established, including ministers, ethicists, physicians, nurses and hospital administrators to address this issue. Now other fields such as transplantation, respiratory support and heart/lung machines create similar challenges.

3. Considerable concern about the cost of technology continues to hold center stage in our media and the public eye.

4. Informed consent with more patient participation in the decision process often creates additional growing ethical factors.

5. Biomedical issues and bioethics have sprung on the scene with sperm banks, DNA mapping and cloning. I recently saw on a television news broadcast where a patient's deceased husband's sperm was to be utilized for her to bear a child. Current ethical issues that appear in the mainstream media on a regular basis are the challenges and ethical dilemmas related to managed care and the debate over the end of life care with pain control and assisted suicide.

The medical profession must accept these challenges and be involved in making ethical decisions for these complex issues. The window of opportunity is short, and if we do not respond, the courts and the legislatures will decide the future. Recently, legislative efforts have been undertaken to stop drive in mastectomies and drive in birthing. These issues certainly should have been decided within the field of medicine, rather than in the legislative halls. Dr. Nancy Dickey, Chairman of the Board of Trustees of the AMA, outlined her experience as she sat in the U.S. Supreme Court and listened to the legal debate over physician assisted suicide. Prior to the proceedings, using the code of medical ethics, our AMA legal staff filed an amicus brief with the court outlining strong opposition to physician assisted suicide. Dr. Dickey stated that she was proud when the arguments made in court read like a page from the code itself, adhering to the most fundamental ethical principles of all, "physician do no harm."

The AMA recently conducted a nationwide survey of adults and found that an overwhelming majority have serious personal concerns about many of the issues medical ethics faces today. News from Scotland left no doubts about public interest in the issues of genetic cloning. You know our woolly friend "Dolly" made headlines across the world this spring when it

became the first mammal to be cloned from an adult cell. Dr. Ian Wilmut, Ph.D. of the Roslin Institute near Edinburgh came to the National Institute of Health (NIH) to talk about Dolly 3 weeks after the research was published in *Nature* (1997 385:810-8B).

Among the concerns the AMA survey uncovered are these:

1. Nearly 9 out of 10 Americans with dependent children (87%) were worried about the growing trend that allows insurance companies, rather than physicians, to play the lead role in determining appropriate medical care.

2. More than 7 out of 10 Americans (76%) were concerned about the myriad issues of care at the end of life, including physician assisted suicide, and adherence to advance directives.

3. While 3 out of 4 Americans would be interested in undergoing some genetic testing, 8 out of 10 (81%) are concerned about the confidentiality of the information that is uncovered. In addition, 6 out of 10 are worried about the ramifications of being able to select the genetic makeup of their children.

As the survey indicates, the ethical concerns of medicine are just as real to the public, our patients, as they are to us. The AMA is committed to address these concerns appropriately and with the high ethical standards that have been the hallmark of medicine.

The AMA has established a new department entitled "The Institute for Ethics." This institute has been created to help guide the profession through the current maze of ethical challenges. Dr. Linda Emanuel, M.D., Ph.D., has been named to head the Institute. She is considered to be one of the top medical ethicists in the country. It is hoped that by establishing this Institute for Ethics at the AMA we will advance the place of ethics in medical professional activities. Already, a number of medical schools have added ethical courses to their curriculum requirements and are integrating the ethical aspects of the medical decision making process at the clinical level. The Institute for Ethics will work closely with the AMA's Council on Ethical and Judicial Affairs, which will continue its important role in setting AMA ethical policy. Special emphasis will be placed on four areas; end of life care, genetics, managed care and professionalism. Once monthly an ethical forum will appear in *AMA News*. Responses to the questions in the ethical forum are to be prepared by the AMA Council on Ethical and Judicial Affairs staff at the Institute and appropriate outside consultants.

In Washington, the recently established Bioethics Advisory Committee held its first meeting to define governing principles of ethical research. Dr. John H. Gibbons, Ph.D., is Director of White House Office of Science and Technology Policy. His concern is to know when it is right to administer genetic tests and who

should have access to the results of these tests. Dr. Gibbons heads a 17-member commission, which has been established to develop recommendations to ensure the well being, autonomy and privacy of human subjects undergoing experimental treatment, as well as recommendations for other appropriate use of genetic information. Dr. Gibbons delivered a message from Vice President Al Gore that reminded the commission that its mandate is to ensure that we understand what is necessary to conduct research in an ethically sound manner. Our ethics must be as good as our science. Genetic testing and gene therapy, two hot button issues, have interested Congress and have widespread national concern. Ultimately, there must be a sense of responsibility on the part of researchers for the ethical treatment of research subjects and genetic information.

The ethical challenges faced by the medical profession today are many, and they may actually threaten the very heart and soul of the medical practice - the patient-physician relationship. These challenges can be best addressed if we rededicate ourselves to the foundations of medical ethical behavior, which have supported the physicians of this country now for 150 years. Our medical profession and its ethical issues have seen a lot of change since the first AMA meeting, and more change can be expected in the years ahead. Our commitment to put patients first is the most important common ground we share with those pioneering colleagues who came to Philadelphia in 1847, and the richest gift we can extend to our colleagues in the future.

Codes of Ethics

The oath of Hippocrates, a brief statement of principle, has come down through history as a living statement of ideals to be cherished by physicians. This oath has been administered to almost every graduating class in this country for over 150 years. The oath was conceived sometime during the period of Grecian greatness, probably the 5th Century B.C. It protected rights of patients and appeared to the inner and finer instincts of physicians without imposing sanctions or penalties on him or her. Other civilizations subsequently developed written principles, but the oath of Hippocrates has remained in western civilization as an expression of the ideal conduct of physicians.

The most significant contribution to western medical ethical history, subsequent to Hippocrates, was made by Thomas Percival, an English physician, philosopher and writer. In 1803, he published a code of medical ethics. His personality, his interests in sociological matters and his close association with the Manchester Infirmary, led to the preparation of a scheme of professional conducts relative to hospital and other charities, from which he drafted a code which

bears his name. At the first meeting of the AMA in Philadelphia in 1847, the two principle items of business were to establish a code of ethics and impose minimal requirements for medical education and training. Although the medical society of the State of New York and Baltimore had written codes of medical ethics prior to this time, it is clear that the AMA's first adopted code of medical ethics was based on Percival's code and was generally accepted throughout the country by physicians as well as the public. Major revisions in the AMA ethical code have occurred in 1903, 1912, 1947, and 1994. The preamble of the AMA code states the following, "The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals and to self. The current principles adopted by the AMA are not laws, but standards of conduct which define the essentials of honorable behavior for the physician."

The term "ethical" is used in opinions on the Council of Ethical and Judicial Affairs to refer to matters involving 1) moral principles or practices and 2) matters of social policy involving issues of morality and the practice of medicine. The term "unethical" is used to refer to professional conduct which fails to conform to those moral standards of policy. Ethical values and legal principles are closely related, but ethical obligations typically exceed legal. The Hippocratic Oath modified by Christian principles is usually administered to graduating classes from medical schools. When a surgeon is inducted into the American College of Surgeons, he is required to take an oath based on similar ethical principles. The following is a copy of the Hippocratic Oath, the AMA's Principle of Medical Ethics and the Fellowship Pledge of the American College of Surgeons:

The Oath of Hippocrates

I swear by Apollo the physician, and Aesculapius, and Health, and All-heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this Oath and this stipulation - to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this Art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture, and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, but to none others.

I will follow that system of regimen which, according

to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work.

Into whatever houses I enter, I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption; and further, from the seduction of females or males of freemen and slaves. Whatever, in connection with my professional practice or not, in connection with it, I see or hear, in the life of men, which ought not to be spoken abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the Art, respectively by all men, in all times! But should I trespass and violate this Oath, may the reverse be my lot!

AMA Principles Of Medical Ethics

Preamble:

The medical profession has long subscribed to a body of ethical statements developed primarily for the benefit of the patient. As a member of this profession, a physician must recognize responsibility not only to patients, but also to society, to other health professionals, and to self. The following Principles adopted by the American Medical Association are not laws, but standards of conduct which define the essentials of honorable behavior for the physician.

I. A physician shall be dedicated to providing competent medical service with compassion and respect for human dignity.

II. A physician shall deal honestly with patients and colleagues, and strive to expose those physicians deficient in character or competence, or who engage in fraud or deception.

III. A physician shall respect the law and also recognize a responsibility to seek changes in those requirements which are contrary to the best interests of the patient.

IV. A physician shall respect the rights of patients, of colleagues, and of other health professionals, and shall safeguard patient confidences within the constraints of the law.

V. A physician shall continue to study, apply and advance scientific knowledge, make relevant information available to patients, colleagues, and the public, obtain consultation, and use the talents of other health professionals when indicated.

VI. A physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical services.

VII. A physician shall recognize a responsibility to participate in activities contributing to an improved community.

Fellowship Pledge of the American College of Surgeons

Recognizing that the American College of Surgeons seeks to exemplify and develop the highest traditions of our ancient profession, I hereby pledge myself, as a condition of Fellowship in the College, to live in strict accordance with its principles and regulations.

I pledge myself to pursue the practice of surgery with honesty and to place the welfare and the rights of my patient above all else. I promise to deal with each patient as I would wish to be dealt with if I were in the patient's position, and I will set my fees commensurate with the services rendered. I will take no part in any arrangement, such as fee splitting or itinerant surgery, which induces referral or treatment for reason other than the patient's best welfare.

Upon my honor, I declare that I will advance my knowledge and skills, will respect my colleagues, and will seek their counsel when in doubt about my own abilities. In turn, I will willingly help my colleagues when requested.

Finally, I solemnly pledge myself to cooperate in advancing and extending the art and science of surgery by my Fellowship in the American College of Surgeons.

In June 1994, the AMA House of Delegates adopted a report from the Council on Ethical and Judicial Affairs. The ethical issues related to managed care are discussed in some detail. Although President Clinton's original reform proposal in 1993 addressed in broad terms the ethical imperatives supporting universal access, it left virtually unexamined the more fundamental question of the role of the physician in a reform system in which the incentives are dramatically changed and budgets determine the amount of health care spending and services. Because of this primary concern, the AMA Council of Ethical and Judicial Affairs undertook and developed an extensive report on ethical issues in managed care and produced a series of recommendations and principles to be followed in the managed care arena. The primary recommendation was that the duty of patient advocacy is a fundamental element of the physician-patient relationship and should not be altered by the system of health care delivery in which physicians practice. Physicians must

continue to place the interest of their patients first. Recommendations of the Council of Ethical and Judicial Affairs are as follows:

Recommendations of the Council of Ethical and Judicial Affairs

For the reasons described in this report, the Council on Ethical and Judicial Affairs recommends that the following guidelines be adopted and the remainder of this report be filed:

1. The duty of patient advocacy is a fundamental element of the physician-patient relationship that should not be altered by the system of health care delivery in which physicians practice. Physicians must continue to place the interests of their patients first.

2. When managed care plans place restrictions on the care that physicians in the plan may provide to their patients, the following principles should be followed:

(a) Any broad allocation guidelines that restrict care and choices -- which go beyond the cost/benefit judgments made by physicians as a part of their normal professional responsibilities -- should be established at a policy making level so that individual physicians are not asked to engage in ad hoc bedside rationing.

(b) Regardless of any allocation guidelines or gatekeeper directives, physicians must advocate for any care they believe will materially benefit their patients.

(c) Physicians should be given an active role in contributing their expertise to any allocation process and should advocate for guidelines that are sensitive to differences among patients. Managed care plans should create structures similar to hospital medical staffs that allow physicians to have meaningful input into the plan's development of allocation guidelines. Guidelines for allocating health care should be reviewed on a regular basis and updated to reflect advances in medical knowledge and changes in relative costs.

(d) Adequate appellate mechanisms for both patients and physicians should be in place to address disputes regarding medically necessary care. In some circumstances, physicians have an obligation to initiate appeals on behalf of their patients. Cases may arise in which a health plan has an allocation guideline that is generally fair but in particular circumstances results in unfair denials of care, i.e., denial of care that, in the physician's judgment, would materially benefit the patient. In such cases, the physician's duty as patient advocate requires that the physician challenge the denial and argue for the provision of treatment in the specific case. Cases may also arise when a health plan has an allocation guideline that is generally unfair in its operation. In such cases, the physician's duty as patient advocate requires not only a challenge to any denials of treatment from the guide-

line but also advocacy at the health plan's policy-making level to seek an elimination or modification of the guideline.

Physicians should assist patients who wish to seek additional, appropriate care outside the plan when the physician believes the care is in the patient's best interests.

(e) Managed care plans must adhere to the requirement of informed consent that patients be given full disclosure of material information. Full disclosure requires that managed care plans inform potential subscribers of limitations or restrictions on the benefits package when they are considering entering the plan.

(f) Physicians also should continue to promote full disclosure to patients enrolled in managed care organizations. The physician's obligation to disclose treatment alternatives to patients is not altered by any limitations in the coverage provided by the patient's managed care plan. Full disclosure includes informing patients of all of their treatment options, even those that may not be covered under the terms of the managed care plan. Patients may then determine whether an appeal is appropriate, or whether they wish to seek care outside the plan for treatment alternatives that are not covered.

(g) Physicians should not participate in any plan that encourages or requires care at below minimum professional standards.

3. When physicians are employed or reimbursed by managed care plans that offer financial incentives to limit care, serious potential conflicts are created between the physicians' personal financial interests and the needs of their patients. Efforts to contain health care costs should not place patient welfare at risk. Thus, financial incentives are permissible only if they promote the cost-effective delivery of health care and not the withholding of medically necessary care.

(a) Any incentives to limit care must be disclosed fully to patients by plan administrators upon enrollment and at least annually thereafter.

(b) Limits should be placed on the magnitude of fee withholds, bonuses and other financial incentives to limit care. Calculating incentive payments according to the performance of a sizable group of physicians rather than on an individual basis should be encouraged.

(c) Health plans or other groups should develop financial incentives based on quality of care. Such incentives should complement financial incentives based on the quantity of services used.

4. Patients have an individual responsibility to be aware of the benefits and limitations of their health care coverage. Patients should exercise their autonomy by public participation in the formulation of benefits packages and by prudent selection of health care coverage that best suits their needs.

Closing

Dr. Edmund D. Pellegrino, a physician and medical ethicist spoke at the Annual Meeting of the American College of Surgeons in San Francisco last year. He stated that the physician-patient relationship and the trust associated with this relationship place ethics right in the examining room. Trust creates a chance to cure and a chance to heal. Trust equals confidence, fidelity, integrity, compassion and honesty. Ethical behavior is extremely important in the character of a physician because the physician is in a position to exploit the patient and misuse this trust. In the practice of medicine, deception for our own benefit is truly flawed and at that point in the physician-patient relationship, the quality of medicine is dramatically strained.

Dr. Pellegrino expressed concern about the integrity of the profession; not the individual physician, but the ethics of the profession. From a moral standpoint, we have never all been virtuous, however, unified as physicians across national boundaries, ethical concepts have bound us together and identified us as a profession.

When I was in medical school, the Hippocratic ethic was the foundation of professional ethics. Through this oath, the foundation was never in question. We were excited by change and accepted change. We had a moral understanding and we felt scientific information could be safely woven into the patient-physician ethic. A stage of metamorphosis has subsequently occurred challenging the ethical foundation of the profession. What has changed in the physician-patient relationship? Some despair and say it is impossible to be ethical in today's climate. Machiavelli took this view a long time ago as he declared it impossible to be virtuous in a climate of nonvirtuous people. The erosion of the ideal of trust and covenant with the patient is under attack. The modern ethicist might reconstruct this relationship to the level of a contract and a commodity transaction. The ethical concepts originated with pagan philosophers, but infusion of Judaism, Islam and Christianity became part of the fabric. Today, there is often a secular rather than a religious approach. The ethics of the community have changed. It is now every man for himself. The fidelity of trust may turn to distrust when there are conflicts of interest. Confidentiality to-date has fortunately been retained, but even this is challenged. Some would say you don't have to be a good person to be a good doctor and that it is an occupation and not a special profession. Challenging our profession today is economics vs. ethics as seen in health care reform expressed in the moral dilemmas of managed care and the ethics of the market place. Are we really a commodity? Managed care has divided the loyalty. Job security is no longer present as doctors are deselected in the market place. Under what circumstances will we not participate?

Integrity vs. societal demands is also an additional new challenge with micro management by families and demands for treatment. I say integrity and trust are important. The physician must be the final pathway. We must rebuild the ethic for the next century. We must preserve the physician-patient relationship. The individual is truly a patient - not a client, not a consumer. A case manager cannot cure. The ill are anxious, fearful and exploitable. There is an increased responsibility of the physician. The responsibility is seen in the physician's power, skill, knowledge to help and trust that exist to provide a service to the patient. The physician invites trust when he asks, "What is your problem?" The moral complexity one on one is inescapable. Certain virtues are necessary to being a physician. The notion of character; no matter what the ethical principle, no matter what the ethical policy, no matter what the legal policy, the patient depends on you as the physician to be the kind of "good" person you are at 3:00 a.m. when no one else is watching. That is the moment of truth. We must be faithful to the trust and act benevolent on behalf of the patient. We must act with self-effacement and not self-interest. Integrity, compassion, intellectual honesty and competence remain the hallmarks of our profession. In philosophy today, we must defend the ethical foundations of medical morality.

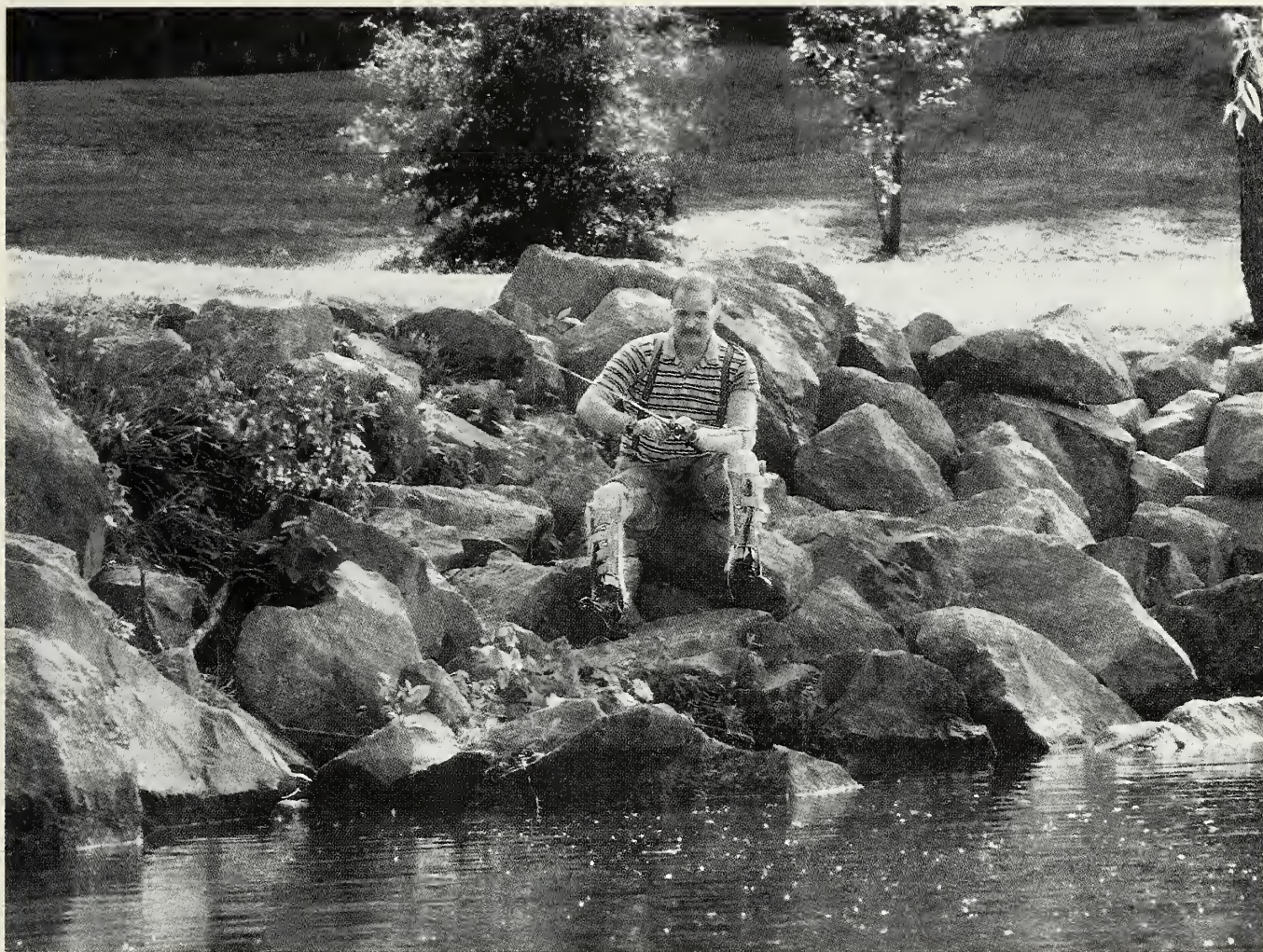
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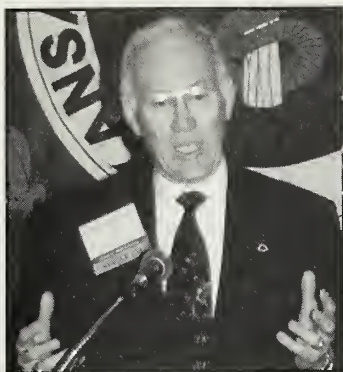


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1997 Convention Speakers



Keynote Address

Dr. Randolph D. Smoak Jr., a general surgeon from Orangeburg, South Carolina, and AMA Secretary-Treasurer, gave the keynote address at the House of Delegates meeting on Thursday, May 1. He talked about AMA activities on a variety of fronts. Dr. Smoak has been reelected to a second term on the AMA Board of Trustees, and since 1994, has served on the Board's Executive Committee and as chair of its Finance Committee.

Shuffield Lecture

Congressman Vic Snyder, MD, elected from Arkansas' Second District to the United States Congress in November 1996, was the featured speaker at the Shuffield Luncheon on Friday, May 2. He talked about his first six months as a congressman and the importance of physician involvement in the political arena. He completed his residency in family practice at the University of Arkansas for Medical Sciences and received his Medical Degree from the University of Oregon. In addition, he has a Law Degree from the University of Arkansas at Little Rock School of Law.



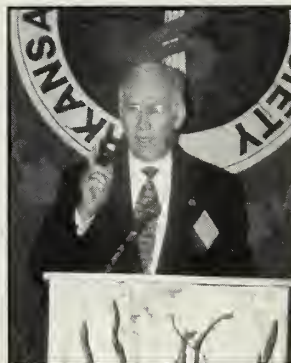
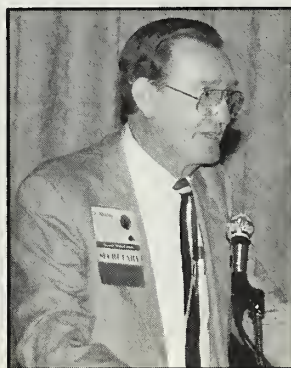
1st Feature Session

During the First Feature Session, **Dr. Michael N. Moody**, **Dr. Randolph D. Smoak Jr.** and **Carole Zylman** participated in a lively panel discussion about physician accreditation in the new managed care environment.

Dr. Michael N. Moody, a board-certified family physician practicing at the Salem Family Clinic, was named 1997-98 President-elect of the AMS during the convention. As medical director of the Arkansas Foundation for Medical Care, he is involved with the Arkansas Medicaid Primary Care Case Management program. He is currently serving on the Arkansas Board of Health.

Dr. Randolph D. Smoak Jr. has served in virtually every leadership position in the South Carolina Medical Association, including President. He is a fellow of the American College of Surgeons and is currently serving as Governor from South Carolina to the American College of Surgeons. Dr. Smoak is a diplomate of the American Board of Surgery.

Carole Zylman represents the Centralized Credentials Verification Service Committee of the Arkansas State Medical Board. She is Director of Provider Relations for Children's Healthcare System. She directs the provider credentialing process and evaluates opportunities to undertake delegated credentialing in relationship to managed care contracts.

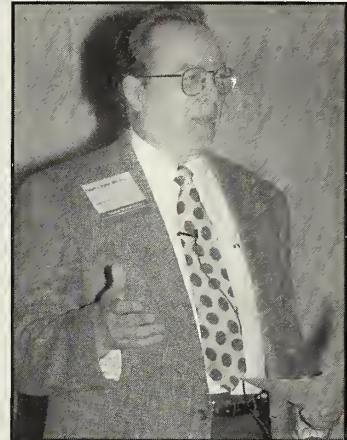


1997 Convention Speakers

2nd Feature Session

Dr. Robert Lyman Potter, of the Bioethics Development Group - a national division of the Bioethics Center - spoke during the Second Feature Session about "Ethical Issues in Managed Care: A Practical Plan of Action."

Dr. Potter has a private practice in internal medicine and is medical director of four nursing homes. He divides his time between practicing, teaching and ethics lecturing. Dr. Potter presented a program outlining the values physicians want to preserve and a positive plan for using bioethics as the mechanism for preserving those values.



3rd Feature Session

Z. Lynn Zeno, AMS Director of Governmental Affairs, spoke during the Third Feature Session. He gave an informative and detailed legislative report from the 81st General Assembly.

In this update to the AMS membership, Mr. Zeno talked about insurance regulations, Medicaid, tort reform and other medical-related bills which were discussed and acted upon by the state legislature.

Seminar for Young Physicians

Art Votek, a Senior Staff Associate for Conomikes Associates in Los Angeles, California, spoke during the Seminar for Young Physicians about "Getting Started in Medical Practice."

The seminar, which was designed for residents and other physicians who may be joining a group, HMO or going solo, included such issues as how to minimize costly mistakes; buying and selling; salary and income distribution; employment agreements; revenue and managed care.



1997 Arkansas Medical Society Annual Session

	Officers	First Session	Second Session
Speaker	Anna Redman	present	present
Vice Speaker	Kevin Beavers	present	present
President	John Crenshaw	present	present
President-elect	Charles Logan	present	present
Vice President	James Crider	present	present
Secretary	Michael Moody	present	present
Treasurer	Lloyd Langston	present	present

	Councilors		
District 1:	Joe Stallings	present	present
	Dwight Williams	present	-
District 2:	Lloyd Bess	present	present
	Daniel Davidson	present	present
District 3:	Hoy B. Speer, Jr	present	-
	P. Vasudevan	present	present
District 4:	John O. Lytle	-	-
	Harold Wilson	present	-
District 5:	Wayne Elliott	-	-
	Fred Murphy	-	-
District 6:	Michael Young	-	-
	VACANT	-	-
District 7:	Robert McCrary	present	present
	Brenda Powell	-	-
District 8:	David Barclay	-	-
	Joseph Beck	-	-
	Paul Cornell	-	-
	Anthony Johnson	-	present
	William Jones	present	present
	Jerry Mann	-	-
	J. Mayne Parker	present	present
	Samuel Welch	present	present
	John L. Wilson	-	present
District 9:	Carlton Chambers	-	present
	Anthony Hui	-	present

District 10:	William McGowan	-	-
	Gerald Stolz	present	present
	John Swicegood	-	-
	Paul Wills	present	present

	Past Presidents		
1979-1980	A. E. Andrews	present	-
1971-1972	C. Stanley Applegate	-	-
1993-1994	Glen F. Baker	present	-
1985-1986	John P. Burge	present	present
1983-1984	Asa A. Crow	-	-
1964-1965	C. Randolph Ellis	present	present
1869-1970	Ross E. Fowler	-	-
1951-1952	Charles R. Henry	-	-
1982-1983	Morriss M. Henry	present	-
1988-1989	John M. Hestir	-	present
1990-1991	William N. Jones	present	present
1987-1988	W. Ray Jouett	present	present
1976-1977	Albert S. Koenig	present	present
1994-1995	James M. Kolb, Jr.	present	-
1980-1981	Kemal E. Kutait	-	-
1992-1993	J. Larry Lawson	present	present
1986-1987	Ken Lilly	-	-
Honorary	C. C. Long	-	-
1967-1968	Joseph Norton	-	-
1974-1975	Ben Saltzman	present	-
1981-1982	Purcell Smith	-	-
1968-1969	H. W. Thomas	-	-
1975-1976	T. E. Townsend	-	-
1991-1992	George Warren	-	present
1989-1990	James Weber	present	-
1984-1985	Charles Wilkins	-	-
1973-1974	John Wood	-	-
1978-1979	George Wynne	-	-

House of Delegates Composition

County	Delegates	First Session	Second Session
Arkansas (1)	Dennis Yelvington	present	present
Ashley (1)	NOT REPRESENTED		
Baxter (2)	Robert Baker	present	present
Benton (4)	J. Thomas Turley	-	present
Boone (2)	Sue Chambers	present	present
	Thomas Langston	present	present
Bradley (1)	Joe Wharton	-	present
Carroll (1)	Oliver Wallace	present	present
Chicot (1)	NOT REPRESENTED		
Clark (1)	Noland Hagood	-	-

Cleburne (1)	NOT REPRESENTED		
Columbia (1)	John Alexander, Jr.	-	-
Conway (1)	NOT REPRESENTED		
Craighead			
/Poinsett (7)	Terence Braden	-	-
	Tim Dow	-	-
	Dennis Parten	-	-
	Joe Stallings	-	-
	Henry Stroope	-	-
Crawford (1)	R. Wendell Ross	present	-
Crittenden (2)	G. Edward Bryant	-	-
	Scott Ferguson	-	-
Cross (1)	Robert Hayes	-	-
Dallas (1)	John Delamore	-	-

House of Delegates Composition (continued)

Desha (1)	NOT REPRESENTED			Reid Henry	-	present
Drew (1)	NOT REPRESENTED			Steve Hodges	-	-
Faulkner (2)	Randal Bowlin	-	-	Jim Ingram	present	-
	Ben Dodge	-	-	Thomas Jansen	-	-
Franklin (1)	David Gibbons	present	-	Carl Johnson	-	-
Garland (7)	Michael Young	present	-	Gail Jones	-	-
	Robert Humphreys	present	-	Stanley Kellar	-	-
	W. C. Hitt	present	-	David King	-	-
Grant (1)	Scott Winston	-	-	Dean Kumpuris	-	-
Greene/Clay (1)	Dwight Williams	-	-	Marvin Leibovich	-	-
Hempstead (1)	NOT REPRESENTED			Stephen Magie	present	present
Hot Spring (1)	NOT REPRESENTED			Kenneth Martin	-	present
Howard/Pike (1)	Robert Sykes	present	present	Jane McKinnon	-	-
Independence (2)	J.R. Baker	present	-	Valerie McNee	present	present
	William Waldrip	present	present	Rickey Medlock	-	-
Jackson (1)	Mufiz Chauhan	present	present	Tena Murphy	-	-
Jefferson (5)	Simmie Armstrong	-	present	Fred Nagel	-	-
	Jacquelyn Frigon	-	-	George Norton	-	-
	David Jacks	present	present	Carl Raque	-	-
	George Roberson	-	-	John Redman	present	present
	Jerrye Woods	-	-	Deanna Ruddell	present	present
	Omar Atiq	-	present	Ashley Ross	-	-
Johnson (1)	NOT REPRESENTED			Ted Saer	-	-
Lafayette (1)	Brad Harbin	present	-	Frank Sipes	present	-
Lawrence (1)	Robert Quevillon	present	present	Kemp Skokos	-	-
Lee (1)	NOT REPRESENTED			Duane Velez	-	-
Little River (1)	NOT REPRESENTED			Randolph (1)	NOT REPRESENTED	
Logan (1)	John R. Williams	-	-	Saline (2)	NOT REPRESENTED	
Lonoke (1)	Leslie Anderson	-	-	Sebastian (12)	Mike Berumen	present present
	Nick Paslidis	-	present		Randy Ennen	-
Medical Student	Karen McNiece	present	present		Kenneth Gardner	- present
Miller (3)	John Ford	-	-		R. Cole Goodman	-
	Joseph Robbins	-	present		Michael Gwartney	-
Mississippi (1)	Joe V. Jones	present	present		David Hunton	-
Monroe (1)	NOT REPRESENTED				Greg Jones	- present
Nevada (1)	NOT REPRESENTED				Robert Knox	-
Ouachita (1)	William Dedman	-	present		Claire Price	-
Phillips (1)	L. J. Pat Bell, Sr.	present	-		John Swicegood	-
Polk (1)	Thomas Tinnesz	present	present		Timothy Waack	- present
Pope (3)	Stanley Bradley	-	-		John Wells	-
	Rudolph Massey	-	-		Morton Wilson	present present
	David Murphy	present	present	Sevier (1)	NOT REPRESENTED	
Pulaski (39)	William Ackerman	-	-	St. Francis (1)	W. Curtis Patton	present present
	D. B. Allen	-	-	Tri-County (1)	George Jackson	- present
	Brad Baltz	-	-	Union (3)	NOT REPRESENTED	
	Ray Biondo	present	present	Van Buren (1)	John A. Hall	-
	Bob Cogburn	-	-	Washington (8)	Anthony Hui	-
	Michael Cope	-	-		Sanford Hutson	present present
	David Coussens	-	-		William McGowan	-
	Philip Deer, III	-	-		Michael Morse	-
	Shirley DesLauriers	-	-		Jim Sharp	- present
	Tom Eans	present	present		Charles Sisco	present
	Jim English	-	present	White (3)	David Covey	-
	Thomas Frazier	-	-	Woodruff (1)	NOT REPRESENTED	
	T.S. Harris	present	-	Yell (1)	James Maupin	present
	Fred Henker	present	present			-

House of Delegates

First Session - May 1, 1997

Speaker of the House Dr. Anna Redman called the meeting to order on Thursday, May 1, 1997, at the 121st annual meeting of the Arkansas Medical Society. Dr. John Crenshaw opened the meeting with a memorial and prayer in honor of Drs. James Armstrong and Payton Kolb, past presidents of the Arkansas Medical Society, who passed away during the past year. Dr. Fred Henker spoke in memory of all Arkansas Medical Society members and their spouses who have also passed away during the past year. The Arkansas Medical Society has made a contribution to the Ilse F. Oates Scholarship Fund in their memory.

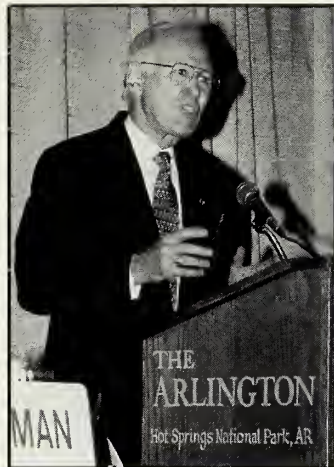
Speaker Redman introduced Ruth Mabry, President of the Arkansas Medical Society Alliance; Cathy Mackey, Chairman AMA-ERF; and Gwen Pappas, President-elect of the Southern Medical Association Auxiliary. Cathy Mackey presented Dr. Glen Baker, representative from University of Arkansas College of Medicine, with two grants from the AMA Education and Research Foundation. The \$2,351.25 is intended for the pursuit of excellence in the medical school's program (there are no restrictions on the use of this money) and \$6,901.25 which is restricted to the school's program of financial assistance for medical students.

Gwen Pappas invited everyone to attend the Southern Medical Association meeting in the fall.

Speaker Redman announced there were 71 members in attendance.

Upon motion, the House approved the minutes of the 120th annual session as published in the June 1996 issue of *The Journal of the Arkansas Medical Society*.

Dr. Gerald Stolz presented a plaque to Dr. Hoy Speer of Stuttgart who served on the Council from 1987 to 1997. Plaques will be sent to Dr. Paul Cornell of Little Rock who served on the Council from 1986 to



Dr. Randolph D. Smoak, Jr., AMS House of Delegates Keynote Speaker

1997 and Dr. Wayne Elliott of El Dorado who served on the Council from 1989 to 1997. Dr. John Crenshaw presented plaques to Dr. Michael Moody of Salem who served as Secretary from 1995-1997 and Dr. James Crider who served as Vice President from 1996-1997.

Speaker Redman announced the vacancy in the Third Congressional District of the Arkansas State Medical Board. Dr. Rhys Will-

iams is serving in this position and is eligible for reappointment. The term is for eight years. Dr. Redman also announced the vacancy in the Fourth Congressional District of the Arkansas State Board of Health. Dr. Raymond Bowman of El Dorado has resigned from this position. The term for this position expires December 31, 1998.

Speaker Redman also announced the 1997-1998 Nominating Committee members: District #1: Dr. Joe Jones, Blytheville; District #2: Dr. Daniel Davidson, Searcy; District #3: Dr. Marion McDaniel, Helena; District #4: Dr. Harold Wilson, Monticello; District #5: Dr. Wayne Elliott, El Dorado; District #6: Dr. A. E. Andrews, Texarkana; District #7: Dr. Timothy Webb, Hot Springs; District #8: Dr. John Wilson, Little Rock; District #9: Dr. Anthony Hui, Fayetteville; and District #10: Dr. Paul Wills, Fort Smith.

Speaker Redman announced that the Reference Committee meetings will begin at 9:30 a.m., Friday, May 2.

Dr. John Burge introduced Dr. Randolph Smoak, a surgeon from Orangeburg, South Carolina, and AMA Secretary/Treasurer since December 1995. Dr. Smoak is also serving his second term on the AMA Board of Trustees. Dr. Smoak gave an update on AMA activities.

Dr. Charles Logan introduced Mr. Lewis Pollack, President of World Lynx, custom contractor of Internet services. Mr. Pollack presented the new Arkansas Medical Society web page and explained the Internet services now available to Arkansas Medical Society members.

There being no further business, the meeting adjourned until Saturday, May 3.



The House of Delegates meeting brings in a full house.

House of Delegates

Final Session - May 3, 1997

Speaker of the House Anna Redman, M.D., called the meeting to order on Saturday, May 3, 1997, and reported there were 66 members present.

Speaker Redman asked Dr. Carlton Chambers, Chairman of the Nominating Committee, to present the slate of officers:

President-elect:

Michael Moody, M.D., Salem

Vice President:

Steven Thomason, M.D., Cabot

Treasurer: Lloyd Langston, M.D., Pine Bluff

Secretary: Carlton Chambers, M.D., Harrison

Speaker of the House: Anna Redman, M.D., Pine Bluff

Vice Speaker of the House: Kevin Beavers, M.D., Russellville

Delegates to the AMA: James Weber, M.D., Jacksonville (1/1/98 - 12/31/99)

Alternate Delegate to the AMA: Larry Lawson, M.D., Paragould (1/1/98 - 12/31/99)

Councilors:

District 1: Joe Stallings, M.D., Jonesboro
Joe Jones, M.D., Blytheville

District 2: Lloyd Bess, M.D., Batesville

District 3: Dennis Yelvington, M.D., Stuttgart

District 4: John Lytle, M.D., Pine Bluff

District 5: Richard Pillsbury, M.D., El Dorado

District 6: Michael Young, M.D., Prescott

District 7: Brenda Powell, M.D., Hot Springs

District 8: Joseph Beck, M.D., Little Rock
C. Reid Henry, Jr., M.D., Little Rock
William Jones, M.D., Little Rock
Mayne Parker, M.D., Little Rock
Anthony Johnson, M.D., Little Rock
Samuel Welch, M.D., Little Rock

District 9: Anthony Hui, M.D., Fayetteville
Jan Turley, M.D., Rogers

District 10: Mike Berumen, Fort Smith
Paul Wills, M.D., Fort Smith



Dr. Michael Moody as 1997-98 President-elect is escorted to the podium by Drs. James Weber and Albert S. Koenig, Jr.

The next order of business was the reports from the Reference Committees. The adoption of these reports was approved and is printed in this the June 1997 issue of *The Journal of the Arkansas Medical Society*.

The Report of the Council was given by Dr. Gerald Stolz, Chairman, and approved by the House to be filed for information.

Speaker Redman announced the following nominees for the state board positions:

Third Congressional District, Arkansas State Medical Board:

Sue Chambers, M.D., Harrison

R. Wendell Ross, M.D., Van Buren

Linda McGhee, M.D., Fayetteville

Fourth Congressional District, Arkansas State Board of Health:

John W. Smith, M.D., Hot Springs

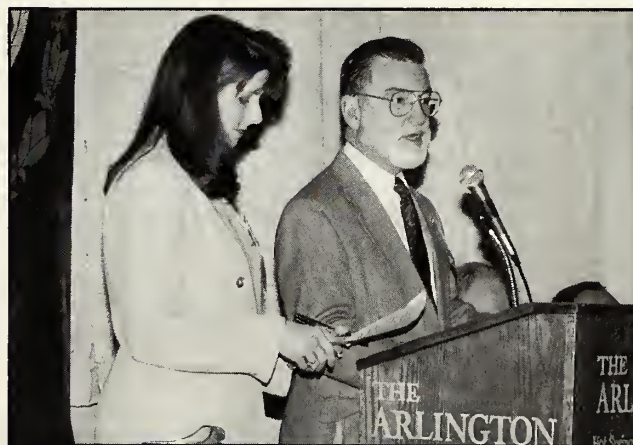
Harold Wilson, M.D., Monticello

Jerry Harvey, D.O., Pine Bluff

Speaker Redman also announced that Dr. Harold Wilson, Monticello, had been chosen Chairman of the Nominating Committee and Dr. Daniel Davidson as Secretary.

Dr. John Crenshaw gave a farewell address to the members and guests. This address is printed in this the June 1997 issue of *The Journal of the Arkansas Medical Society*.

There being no further business the meeting adjourned.



Dr. Anna Redman, Speaker of the House of Delegates, and Dr. Carlton Chambers, 1996-97 Chairman of the Nominating Committee elected 1997-98 Secretary.

1997-1998 Arkansas Medical Society Officers

Charles Logan, M.D., Little Rock, President
Michael Moody, M.D., Salem, President-elect
Steven Thomason, M.D., Cabot, Vice President
John Crenshaw, M.D., Pine Bluff, Immediate Past President
Carlton Chambers, M.D., Harrison, Secretary
Lloyd Langston, M.D., Pine Bluff, Treasurer
Anna Redman, M.D., Pine Bluff, Speaker, House of Delegates
Kevin Beavers, M.D., Russellville, Vice Speaker, House of Delegates

AMS Executive Committee Members

Gerald Stolz, M.D., Russellville, Chairman of the Council
Charles Logan, M.D., Little Rock, President
Michael Moody, M.D., Salem, President-elect
Carlton Chambers, M.D., Harrison, Secretary
Lloyd Langston, M.D., Pine Bluff, Treasurer
John Crenshaw, M.D., Pine Bluff, Immediate Past President

Councilors and Councilor Districts

First District: Dwight Williams, M.D., Paragould (1998); Joe Stallings, M.D., Jonesboro (1999); Joe V. Jones, M.D., Blytheville (1999) - Clay, Craighead, Crittenden, Greene, Lawrence, Mississippi, Poinsett, Randolph

Second District: Daniel Davidson, M.D., Searcy (1998); Lloyd Bess, M.D., Batesville, (1999) - Cleburne, Conway, Faulkner, Fulton, Independence, Izard, Jackson, Sharp, Stone, White

Third District: Parthasarathy Vasudevan, M.D., Helena (1998); Dennis Yelvington, M.D., Stuttgart (1999) - Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis, Woodruff

Fourth District: Harold Wilson, M.D., Monticello (1998); John O. Lytle, M.D., Pine Bluff (1999) - Ashley, Chicot, Desha, Drew, Jefferson, Lincoln

Fifth District: Fred Murphy, M.D., Magnolia (1998); Richard Pillsbury, M.D., El Dorado (1999) - Bradley, Calhoun, Cleveland, Columbia, Dallas, Ouachita, Union

Sixth District: Position Vacant (1998); Michael Young, M.D., Prescott (1999) - Hempstead, Howard, Lafayette, Little River, Miller, Nevada, Pike, Polk, Sevier

Seventh District: Robert McCrary, M.D., Hot Springs (1998); Brenda Powell, M.D., Hot Springs (1999) - Clark, Garland, Grant, Hot Spring, Montgomery, Saline

Eighth District: David Barclay, M.D., Little Rock (1998); John L. Wilson, M.D., Little Rock (1998); Position Vacant (1998); Joseph Beck, M.D., Little Rock (1999); C. Reid Henry, Jr., M.D., Little Rock (1999); William Jones, M.D., Little Rock (1999); J. Mayne Parker, M.D., Little Rock (1999); Anthony Johnson, M.D., Little Rock (1999); Samuel Welch, M.D., Little Rock (1999) - Pulaski

Ninth District: William McGowan, M.D., Springdale (1998); Position Vacant (1998); Anthony Hui, Fayetteville (1999); Jan Turley, M.D., Rogers (1999) - Baxter, Benton, Boone, Carroll, Madison, Marion, Newton, Searcy, Van Buren, Washington

Tenth District: John Swicegood, M.D., Fort Smith (1998); Gerald Stolz, M.D., Russellville (1998); Mike Berumen, M.D., Fort Smith (1999); Paul Wills, M.D., Fort Smith (1999) - Crawford, Franklin, Johnson, Logan, Perry, Pope, Scott, Sebastian, Yell

Medicare Post Pay Review Audits

EFFECTIVE JANUARY 1, 1997, THE FEDERAL GOVERNMENT WILL STEP UP THEIR EFFORTS TO IDENTIFY CODING VIOLATIONS AND CONSIDER FRAUD AND ABUSE CHARGES AGAINST PHYSICIANS.
IT IS THE DOCTOR'S RESPONSIBILITY TO KNOW — OR LEARN — ACCURACY.

Can your office manager profile your practice?

(Good idea to ask that question now.)

Ever been audited by Medicare/Medicaid?

!!!!!!!NOT FUN!!!!!!!

Texas Doctor Goes To Jail, Re-Pays Medicare \$,,\$,\$,\$\$. (Houston Chronicle)
Office Manager (Wife) Indicted as Co-Conspirator

Arkansas Doctor Told to Re-Pay Medicare \$900,000 in 30 days. (could you?)

*Let us "Profile" your practice
and you will avoid the possibility of the above problems.*

- We will show you how your practice compares to your peer group.
- Verify your level of service coding process.
- Insure that you are not violating "volume screens."
- Determine your ranking among your peer group specialty.

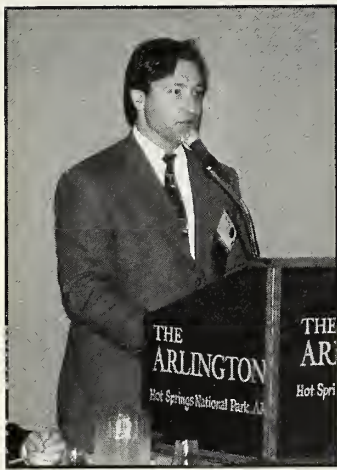
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Reference Committee #1

David Murphy, M.D., Chairman

Reference Committee #1 was composed of: Dr. Jerry Stewart, Fort Smith; Dr. Kim

Garner, Pine Bluff, Resident Representative; Ms. Kelli Wilson, Little Rock, Medical Student Representative; and Dr. David Murphy, Russellville, Chairman.

This Reference Committee gave careful consideration to the reports submitted to the reference committee and made the following recommendations.

Annual Session Committee Dr. Jerry Mann, Chairman

This Reference Committee recommends that the report of the Annual Session Committee be filed for information and that Dr. Jerry Mann and the Arkansas Medical Society staff be recognized for their exceptional work in organizing the 1997 annual meeting and for the quality of the speakers and programs.

Arkansas Medical Society 1997 Budget Dr. Gerald Stolz, Chairman

This Reference Committee recommends that the Arkansas Medical Society 1997 Budget Report be filed for information and that the Arkansas Medical Society Budget Committee, Council, and staff be commended for the sound fiscal management that has resulted in a positive financial condition for the Medical Society.

CME Accreditation Committee Dr. Steve Strode, Chairman

This Reference Committee recommends that the report of the CME Accreditation Committee be filed for information and that physicians interested in participating in the CME accreditation program contact the Arkansas Medical Society office or Dr. Steve Strode, Chairman of the CME Accreditation Committee.

Report of the Council Dr. Gerald Stolz, Chairman

This Reference Committee recommends that the report of the Council be filed for information and that Mr. Lynn Zeno and the Arkansas Medical Society Governmental Affairs Council be commended for their

efforts in passing legislation requiring licensure of out-of-state physicians who interpret radiology and pathology exams on Arkansas patients.

Executive Vice President Report

Mr. Ken LaMastus, Executive Vice President

This Reference Committee recommends that the report of the Executive Vice President be filed for information and that physicians who serve in leadership roles of the Arkansas Medical Society and who volunteer many hours of time toward the betterment of the medical profession and patient care be commended.

Physicians' Health Committee Dr. Joe Martindale, Chairman

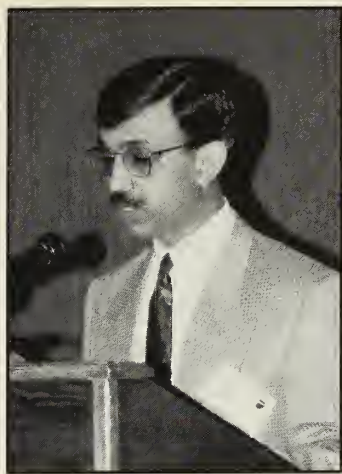
This Reference Committee recommends that the report of the Physicians' Health Committee be filed for information. This Reference Committee would like to commend the Physicians' Health Committee for expanding their program to include dentists. The reference committee recommends that efforts be undertaken to improve cooperation with hospitals, managed care organizations, and malpractice carriers.

Young Physicians' Leadership Task Force Dr. Anna Redman, Chairman

This Reference Committee recommends that the report of the Young Physicians' Leadership Task Force be filed for information and that Dr. Anna Redman and members of her committee be commended for their efforts to get young physicians involved in the Arkansas Medical Society.

This Reference Committee also recommends that the leadership of the Arkansas Medical Society send a letter to UAMS encouraging more support and cooperation in providing opportunities for students and residents to participate in, and attend medical society activities, particularly those designed specifically for their benefit.

This concludes the report of Reference Committee #1. The chairman wishes to thank those who appeared before the Committee, members of the Committee, and Nadine Gentry of the AMS staff for her assistance.



Reference Committee #2

Omar Atiq, M.D., Chairman

Reference Committee #2 was composed of: Dr. James Crider, Harrison; Dr. Glen

Knowles, Bradford; Dr. Jane McKinnon, Little Rock; Dr. Nick Paslidis, Carlisle; Dr. Angela Driskill, Pine Bluff, Resident Representative; Ms. Karen McNiece, Conway, Medical Student Representative; and Dr. Omar Atiq, Pine Bluff, Chairman.

This Reference Committee carefully reviewed and discussed the following reports: Medical Education Foundation for Arkansas, Dr. Martin Eisele, President; AMS Medical Student Section, Joel Milligan, President; and Pulaski County Medical Society, Dr. Bruce E. Schratz, President.

Reference Committee #2 recommends that these reports be filed for information.

This Reference Committee gave careful consideration to the following reports submitted to the reference committee and made these recommendations:

Medical Services Review Committee

Dr. Joe Stallings, Chairman

This Reference Committee recommends that the report of the Medical Services Review Committee be filed for information and that all members who are currently serving and those who have previously served on the Medical Services Review Committee be commended for their service on behalf of the State Medical Society.

Arkansas Department of Health

Dr. Sandra Nichols, Director

This Reference Committee recommends that the report of the Arkansas Department of Health be filed for information and that Dr. Nichols be commended and applauded for her leadership.

Arkansas Health Care Access Foundation

Dr. Joe Colclasure, President

This Reference Committee recommends that the report of the Arkansas Health Care Access Foundation be filed for information and that all volunteer

physician-participants be commended for providing medical services to low-income patients.

Arkansas State Medical Board

Peggy Pryor Cryer, Executive Secretary

This Reference Committee recommends that the report of the Arkansas State Medical Board be filed for information.

This reference committee also recommends that the Arkansas Medical Society send a letter to the Arkansas State Medical Board requesting that the Board reconsider Regulation 2(6), regulating narcotic prescriptions for chronic pain, prior to its implementation, because of concerns regarding the language and procedures in the regulation, which might adversely affect patient care; and that a revised regulation be promulgated which takes these concerns into consideration, in addition to considering information available through national agencies involved in pain management, such as Partners Against Pain.

This reference committee heard testimony and comments both in favor and in opposition of Regulation 2(6).

While the reference committee recognized the concerns voiced on behalf of the Arkansas State Medical Board regarding the misuse of narcotics, the consensus of the committee was that the regulation may unduly hinder treatment of chronic pain by:

1. imposing cumbersome regulations on physicians who manage chronic pain, which in turn may limit patients' access to medical treatment,
2. appearing to stigmatize the legitimate use of narcotics by requiring the patient's written consent,
3. making physicians who may be providing appropriate care liable for both civil and criminal prosecution.

This concludes the report of Reference Committee #2. The chairman wishes to thank those who appeared before the Committee, members of the Committee, and Tina Wade of the AMS staff for her assistance.

Report of the Council

May 1-3, 1997

The following business was received and transacted on Thursday, May 1, 1997:

1. Dr. Glen Baker provided an update on the Arkansas Medical Foundation. The responsibilities of the foundation are to make certain funding is available and the Arkansas Medical Society Council's needs are being met. The office has been established in Bryant with one full-time staff member.
2. The following appointments were made:
Budget Committee:
Anthony Hui, Fayetteville (term is from January 1, 1998 to December 31, 2001)
Harold Wilson, Little Rock (term is from May 3, 1997 to December 31, 2000)
Journal Editorial Board:
Vickie Henderson, Russellville
Samuel Landrum, Fort Smith
MEFFA:
William Bishop, Little Rock
Pension Plan Board of Trustees:
John Wilson, Little Rock
Samuel Welch, Little Rock
Committee on Position Papers:
John Lytle, Pine Bluff
James M. Kolb, Jr., Russellville
Kevin Hale, Hot Springs

The following nominations must be approved by the Arkansas Medical Foundation Board of Directors:
Larry Lawson, Paragould, President
Joanna Seibert, Little Rock, Vice President
Glen Baker, Little Rock
3. The Council voted to delay appointments to the Medical Services Review Committee.
4. The Council voted to delay appointments to the Medicare Carrier Advisory Committee.
5. The Council approved the minutes of the February 5, 1997 Council meeting.
6. The Membership and Budget Reports were accepted as information.
7. Dr. William Jones discussed the low participation

and lack of contributions to MED-PAC and encouraged everyone to make a contribution.

8. Ken LaMastus discussed the 1996 Arkansas Medical Society audit. The Council accepted the report for information.
9. The Council accepted the 1996 MEFFA audit for information. Dr. James M. Kolb, Jr., gave a report on the MEFFA meeting held during the convention. A motion was made that if sufficient funds were available at the end of the year, the Budget Committee would consider an additional \$10,000 contribution to MEFFA. The Council defeated this motion.
10. An update of the AMS Pension Plan was given by Dr. Anna Redman, Chairman. Due to Boatmen's Trust Company selling their pension plan services, the AMS Pension Plan Board of Trustees approved transferring the funds to First Commercial Trust Company and changing the pension plan to a 401(k). Ken LaMastus reported no changes will be made in employees' contributions. First Commercial Trust Company will serve as trustee.
11. The Council voted to endorse the Federal HIV Prevention Act of 1997. The Council voted that a letter would be mailed to the Arkansas Congressional Delegation encouraging them to cosponsor and support this important public health legislation and another letter be mailed to the presidents of the other 49 state medical societies asking them to take similar action.
12. The Council approved a motion to send a strongly worded letter to Attorney General Winston Bryant encouraging him to participate in any litigation that might curb the use of tobacco products by children and adults, and recoup any taxpayers' dollars that have been, or are being spent, for the care of tobacco related diseases, and that this letter be distributed to the media.
13. Dr. Joe Stallings, Chairman of the Medical Services Review Committee, gave an update on his committee. The Council voted to abolish the Medical Services Review Committee.

The following business was received and transacted on Friday, May 2, 1997:

1. Dr. Charles Logan explained the new Internet project which was presented at the opening session of the House of Delegates.
2. Ken LaMastus reported the Position Papers Committee had postponed a position paper on appetite suppressant drugs.
3. Mike Mitchell reported on the sale of the THG Management Group to Vanderbilt University. He reported that under the new ownership the Arkansas Medical Society contract with THG would be honored.
4. Mike Mitchell gave an update on the Patient Protection Act (Any Willing Provider) lawsuit. The lawsuit is on appeal to the Eighth Circuit Court.
5. The Council approved direct membership status to the following physicians:

Kimberly R. Agee, M.D.	Hot Springs
Yeshitila Agzew, M.D.	Little Rock
Tamim Antakli, M.D.	Little Rock
James C. Arrington, M.D.	Hope
Christopher A. Bailey, M.D.	Texarkana, TX
Colin R. Bailey, M.D.	Lewisville
Jeffrey C. Bearden, M.D.	Mount Ida
William E. Beebe, M.D.	Mountain View
Lisa Beisel, M.D.	Little Rock
Terri Blackstock, M.D.	Little Rock
Richard E. Brown, Jr., M.D.	Fayetteville
Martin John Carey, M.D.	Little Rock
Vidyasagar Chodimella, M.D.	Pine Bluff
John L. Coffman, M.D.	Fort Smith
Roy D. Coleman, M.D.	White Hall
Jackie Coombe-Moore, M.D.	Russellville
Bret F. Craytor, M.D.	Texarkana, TX
Ronald M. Crow, M.D.	Bull Shoals
Thomas J. Davis, M.D.	Fayetteville
James A. Dolak, M.D.	Little Rock
Rodger Dunigan, M.D.	Springdale
Moses Chukwudi Ejiofor, M.D.	Shreveport, LA
Maroun El-Hayeck, M.D.	Eudora
Charles R. Feild, M.D.	Little Rock
Darren E. Flamik, M.D.	Little Rock
Sandra L. Gregory, M.D.	Memphis, TN
Andrew Grose, M.D.	Hot Springs
David L. Handley, M.D.	Fort Smith
Stuart D. Haraway, M.D.	Fort Smith
Ross A. Hardy, M.D.	Hot Springs

Steven E. Harms, M.D.	Little Rock
W. Bradley Henry, M.D.	Little Rock
Juan Hughes, M.D.	Fort Smith
John Ironside, M.D.	Little Rock
Charles B. Itzig, M.D.	Flippin
Gary Robert Jacobs, M.D.	Longview, TX
Muhammed Jaffar, M.D.	Little Rock
James E. Kelly, III, M.D.	Fort Smith
William R. King, M.D.	Mountain Home
Glen C. Knowles, M.D.	Bradford
Steven A. Kulik, M.D.	Little Rock
Johnny Mack Lamb, M.D.	Little Rock
Angela R. Lovett, M.D.	Little Rock
Daniel W. McCoy, M.D.	Fort Smith
Bethany Ann McGraham, M.D.	Hot Springs
Wanda V. McMichael, M.D.	Fort Smith
Jesse Moore, M.D.	Augusta
Andrea J. Murray-Stephens, M.D.	Fort Smith
William L. Murry, M.D.	Fayetteville
Charles A. Napolitano, M.D.	Little Rock
Brian Nichol, M.D.	Little Rock
John E. Nix, M.D.	Lewisville
Patrick J. O'Sullivan, M.D.	Memphis, TN
A. Wade Parker, M.D.	El Dorado
Larry L. Patrick, M.D.	Little Rock
Neylon S. Pilkington, M.D.	Russellville
Carina Ploetz, M.D.	Waldron
Floyd Pohle, M.D.	Livingston, TX
Maria Cora Porter, M.D.	Little Rock
Joseph William Queeney, M.D.	Fort Smith
Graham M. Reid, M.D.	Little Rock
Paul L. Rodriguez, M.D.	Monticello
Thomas E. Rosenzweig, M.D.	Little Rock
Richard Sandler, M.D.	Springdale
Cem Sarinoglu, M.D.	Forrest City
Nancy L. Schrader, M.D.	Little Rock
Marney K. Sorenson, M.D.	Hot Springs
Jon P. Spiers, M.D.	Hot Springs
Melody St. John, M.D.	Hot Springs
Patrick Travis, M.D.	Fayetteville
Muthusamy Velusamy, M.D.	Little Rock
Eric D. Vogel, M.D.	Hot Springs
Susan Ward-Jones, M.D.	West Memphis
John W. Wright, M.D.	Little Rock
Nauman Yunus, M.D.	Clarendon

6. The Council approved dues exempt status for the following physicians:

Roy A. Brinkley, M.D.	Pulaski	Emeritus
Donald G. Browning, M.D.	Pulaski	Affiliate
Thomas A. Bruce, M.D.	Pulaski	Emeritus
Helga E. Chock, M.D.	Baxter	Affiliate
Richard B. Clark, M.D.	Pulaski	Emeritus
Edwin L. Coffman, M.D.	Sebastian	Emeritus

Charles Cook, M.D.	Sebastian	Affiliate
Edward Doyle, M.D.	Crawford	Affiliate
Hillard R. Duckworth, M.D.	Greene/Clay	Life
George M. Goza, Jr., M.D.	Pulaski	Affiliate
Lynn Haines, M.D.	Pope	Affiliate
Robert Hardin, M.D.	Pulaski	Affiliate
C. Harold Harger, M.D.	Pulaski	Emeritus
Cagle Harrendorf, M.D.	Pulaski	Emeritus
W. Turner Harris, M.D.	Pulaski	Emeritus
William F. Hayden, M.D.	Pulaski	Emeritus
J. Harry Hayes, Jr., M.D.	Pulaski	Affiliate
Williams C. Holmes, Jr., M.D.	Sebastian	Emeritus
Jerry C. Holton, M.D.	Pulaski	Emeritus
John W. Jacks, M.D.	Benton	Affiliate
Clarence W. Jackson, M.D.	White	Life
William R. Keadle, M.D.	Garland	Life
Patrick K. Keane, M.D.	Benton	Affiliate
Lawrence A. Kelley, M.D.	Baxter	Life
James L. Lowry, M.D.	Clark	Affiliate
Jim E. Lytle, M.D.	Independence	Emeritus
Albert D. MacDade, M.D.	Sebastian	Emeritus
William R. Mashburn, M.D.	Garland	Affiliate
Joseph H. McAlister, M.D.	Washington	Affiliate
Robert H. Nunnally, M.D.	Ouachita	Emeritus
Billy Page, M.D.	Greene/Clay	Life
Lee B. Parker, Jr., M.D.	Washington	Emeritus
Norman W. Peacock, Jr., M.D.	Little River	Affiliate
Gary S. Sapiro, M.D.	Craighead/Poinsett	Affiliate
Purcell Smith, Jr., M.D.	Pulaski	Emeritus
James R. Snider, M.D.	Sebastian	Emeritus
Charles G. Swingle, M.D.	Craighead/Poinsett	Life
Jerry L. Thomas, M.D.	Cleburne	Emeritus
Thomas H. Wortham, M.D.	Pulaski	Life

7. The following appointments were made to the Medicare Carrier Advisory Committee:

Anesthesiology: Dr. Mark Brown, Searcy
 Cardiovascular Diseases: Anthony Bennett, Little Rock
 Cardiovascular Surgery: James E. Harrell, Jr., Little Rock



1997-1998 Council of the Arkansas Medical Society

Gastroenterology: Doug Smart, Little Rock
 Neurology: Mary Corbitt, North Little Rock
 Neurosurgery: David L. Knox, Fayetteville
 Ophthalmology: Robert Berry, Little Rock
 Psychiatry: Raymond Rammel, Little Rock
 Plastic Surgery: Kristopher Shewmake, Little Rock
 Pulmonary Diseases: J. Neal Beaton, Little Rock
 Thoracic Surgery: Frederick A. Meadors, Little Rock
 Urology: Barre Finan, Little Rock

8. The Council approved a resolution to authorize the changes in the AMS Pension Plan.
9. David Wroten gave an update on the Medicaid Fee Schedule and the possibility of a change in the fee structure. The Arkansas Medical Society has a meeting scheduled in May with officials from Medicaid.
10. Dr. William Jones expressed appreciation to Lynn Zeno, Dr. Scott Ferguson, and Mike Mitchell for a successful legislative session.
11. Dr. Lloyd Langston expressed concern on the involvement of government in selection of nominees for state boards.
12. Dr. John Wilson reported on the Presidents' Club meeting.

There being no further business the meeting adjourned.



1997-1998 Arkansas Medical Society Council Officers



Farewell Address

John Crenshaw, M.D.
President 1996-1997

Madam Speaker, honored guests, colleagues and visitors: I am grateful to you, my colleagues, for permitting me to serve as your President during this past year. I cannot even begin to adequately commend our AMS staff for their efficiency, dedication, and sense of cooperation. Ken LaMastus has been Executive Vice-President for 21 years, David Wroten has been Assistant Executive Vice-President for 14 years, Lynn Zeno has been Director of Governmental Affairs for 10 years, and Kay Waldo has been Director of Administrative Services for 6 years. These long tenures and others on our staff speak well for our society... and for our staff. Most of you realize the Council of the AMS with Dr. Gerald Stolz as its Chairman and the Executive Committee of the society are the primary decision-making groups for the Arkansas Medical Society. I feel both proud and humble to have been a small part in this team. I also want to report the AMS remains financially sound as has been discussed in detail at the council meetings.

The Eighty-first General Assembly devoted a tremendous amount of time to medical-related issues that affect our profession. Representative, Dr. Scott Ferguson, a radiologist from West Memphis, has led our governmental affairs committee and assisted Lynn Zeno in representing our society and, hopefully, our patients. The successes of our society were outlined in the third session this morning and will be published soon in the AMS Journal. The ARKids First Program will provide insurance coverage for 90,000 children who were previously ineligible for Medicaid and whose families could not or would not purchase traditional insurance coverage. The Breast Cancer Act will provide 2.5 million dollars for detection, education, treatment, and research in Arkansas. The Arkansas Health Care Con-

sumer Act provides one of the most comprehensive patient and physician protection packages in our nation. The Pharmacist Injection Bill was diluted by amendments that will probably prevent abuse. We must acknowledge defeat in that the bill to repeal motorcyclists' helmets passed. Apparently effective, persistent lobbying won over common sense.

We should realize that more efforts are required for the Eighty-second General Assembly, in 1999, because over half of the state representatives will be new due to the term limits prohibiting re-election. These new politicians will require grassroots support and more efforts from our governmental affairs committee and Lynn Zeno. We must establish ourselves now for the 1999 session and influence the November 1998 election process. Our PAC needs your dues, phone calls, and personal contacts with your representatives. We need more than the 1996 figures of 11.9 percent of our AMS members to be PAC members and we must increase participation. Realizing the significance of having two physicians in the State Legislature, the AMS can boast of State Representative, Scott Ferguson, and State Senator, Faye Bozeman. Former State Senator, Dr. Vic Snyder, has been elected to the U. S. House of Representatives and will represent all of us well. Lynn Zeno has gained the respect and trust of the senior legislators, but the junior group will not know him or know they can rely on his integrity. For this reason alone, each of us must accept the responsibility of reaching for and gaining more support from the members of our local societies.

During the Shuffield lecture, yesterday, Vic Snyder emphasized that your government and our elected officials feel compelled to change medical practices to help balance the budget. To quote Vic, "government

will do something, either with us or to us." We must, therefore, choose to do something with our government, and we must become less apathetic and participate in the political arena.

The AMS should be proud of the 3900 members of our society. This represents approximately 80% of the practicing physicians in Arkansas, and this percentage is above the national average. We must recognize that our time, dues, and commitment to state and national organizations are effective in influencing standards for the profession of medicine. I do not expect any large organization to follow my limited plan of action, but I do have the opportunity to influence policy by electing delegates to represent my partisan position and so do you!

During this past year I assisted in the first annual meeting of the medical directors for nursing homes in

Arkansas in conjunction with the nursing home administrators. This is an area of medicine that has been overlooked. I feel that these people can bring a great deal to the society, and the society has a lot to offer them. I plan to further pursue the organization of these medical directors during this coming year.

In summary, I am grateful for the opportunity to serve as your President this year. I challenge each of you to support Dr. Charles Logan during his tenure and all the other leaders of our organization. They will need your help with the challenges of managed care and increased competition for a fair share of the health care resources. We must maintain one clear image for medicine and resist speciality fractionization, which weakens our political position. We all share this concern... Are medical decisions to remain the province of the physician-patient relationship?



Dr. Logan presents Dr. Crenshaw with a framed cover of *The Journal of the Arkansas Medical Society*.

On behalf of the AMS, Dr. Logan presents an "Old Tom Morris & Rut Iron Replica" shadow box to Dr. Crenshaw.



Dr. Crenshaw and his wife Donna dance the night away to the tunes of Andy Childs at the President's Reception and Dance



Alliance Presidential Address

Barbara Moody
AMSA 1997-1998 President

Twenty-five years ago, Nancy Boop and Sara Jouett hosted a lunch for members of Med Dames...I was there. They were so gracious and made us all feel so welcome.

We were impressed with Sara's beautiful home and the lovely lunch. This was what the real world would be like after medical school? It looked pretty wonderful.

Twenty-five years ago, Willie Oates gave a speech to Med Dames about the trials of being a doctor's spouse. I was there. "You'll be alone a lot," she said. This did not look so wonderful. "Stay busy," she said, "Volunteer." I was inspired.

Twenty-five years ago, I was president of Med Dames. Several of you were there that year. We were wondering then what family life would be like in the medical profession. Now we know, and I guess we have taken Willie's advice as evidenced by the fact that we're here still taking an active part in this volunteer organization. We were then and are today, "physicians' spouses dedicated to the health of Arkansas."

AMSA projects clearly reflect our dedication in organized counties but I want us to reach out to more effectively address the health of our state. One of my new board positions is Member-at-Large Education Facilitator. Gail Young will be helping us reach the unorganized counties (but we also need to find spouses in those counties to be more effective). We are even dedicated to the health of our nation as seen in our legislative lobbying efforts. Also on the national level, we could consider future action such as that taken by the Pennsylvania Medical Society Alliance recently. I hope you were all as touched as I was by the disaster relief donation sent to our state through our Alliance. Truly, this was an example of dedication to health care on a larger scale.

This year I hope we will have many gatherings, lunches or coffees, and I hope they will be as special to someone as that one at Sara's was for me. We must reach out and encourage participation by all physicians' spouses. We will say, much like Tom Sawyer painting that fence, "Come, join us, we're having so much fun." After all, when we're together, we DO have fun!

We must seek to include student, intern and residents' spouses in addition to those in the unorganized counties who may be just waiting for a worthwhile reason or maybe just for a friendly invitation. (I say "worthwhile" because some see joining a group just for fun as self-centered.) So...

With expanded newsletter coverage, all spouses will see what our members are accomplishing on small and large scales. And they will see that we really have our hearts in this work and they will want to be a part. If we combine this information "blast" with an extended hand and a smile, I feel that our membership will increase. Not only will WE benefit from all those new members but they will be able to share the excitement and fulfillment of participating in the projects and services we provide to and through our membership. I am asking each organized county to appoint a committee to reach out to potential members in all of their surrounding counties. Encourage these spouses to join us. If they are reluctant due to time commitments, ask them to become members-at-large. They will get all our publications and information as well as have the satisfaction of knowing they are supporting our projects statewide. Another segment of potential spouses is being given attention through the new Male Alliance Network (MAN Committee). Reggie Corbitt has agreed to chair this effort. Reggie will be there for any male spouses who have questions. We will be discussing and evaluating this position to determine whether the need for this committee is more perceived than actual. Further action can be taken later.

As the ad in the AMS Journal said, "our members are the heart of our organization." Our members ARE the HEART of our organization, and while we have a big heart, there is always room for growth. Just as Sara and Nancy welcomed me 25 year ago, I want to welcome many more spouses this year, and the next, and the next - by gosh in 25 more years I want my 50-year certificate!

Also this year, we'll be busy with domestic violence issues. Yes, along with Willie, who has always practiced what she preached, we'll be volunteering. We'll be volunteering not only in our own communities but hopefully in many other communities throughout the state. We must continue to support abuse shelters; we will reach out to elementary students with the hands message and high school students with the always appropriate DWI project. We will stay busy with

legislative efforts whenever needed, Lynn knows we are always "on call."

We must continue to alleviate the pain of abused women across our state. We have county alliance members who are now providing services to shelters by: answering crisis phone lines, decorating rooms, donating personal care items for the comfort of clients, creating spaces for clients and their children to be safe, and by making counseling available for them to learn skills for coping with or escaping their abusive situation. These shelters do so much but always need a little extra help and many of our potential members may not be aware of how little it takes to make a big impact. We must let them know how they can help. We must let them know they can make a difference.

We must continue to do whatever we can to diminish the violence among our young people by saying "Hands are for waving hello and hugging but not for hitting." We hope to put the "hands" place mats or something similar in every K-3 classroom in the state. Cheryl Roberts is looking for appropriate grants now.

We must continue reminding our teenagers of the dangers of DWI or DUI by offering them a chance to discuss this ever present problem through our video contest. I can tell you first hand, teenagers love the chance to be a STAR. Some will shine as writers, some as directors and some as actors. We've done this project before, but I believe it is a timeless message that bears repeating. However, we are going to streamline the project for maximum impact without draining our manpower resources. (More grant money needed

here.) Wasn't it clever to plan a grant writing workshop this summer? Maybe next we need to add a "grant writing" committee to our board? There are several great programs our counties are providing that I think would be wonderful on the state level. If we only had the members. Can you imagine play hospital, baby-sitting classes, "Baby Think It Over" and/or bicycle safety seminars connected with every hospital in the state? You know we have potential members because every hospital has doctors and many of them have spouses. Think about that. Imagine contacting hospitals with projects and getting them to recruit their doctors' spouses.

Yes, we must continue to encourage all spouses to join us. But, in the meantime, we will do whatever we can, whenever we can. Yes, Willie, our physician spouses are still busy, and we will stay busy, and we will be focused. At our presidential planning retreat, we were trying to come up with a theme. We wanted something to take us into the new millennium. We mentioned the "bridge" idea but decided that others were working on the bridge. "Focus on the Future" seemed appropriate. I decided that as we "focus on the future" we must stay healthy and active in our communities, across our state, and in some cases our nation. We will be focused; we will increase our HEART strength with new members, and together we'll be ready. We will power walk across that bridge into the 21st century. We will greet the new millennium hand in hand and heart to heart. Please join us!

Arkansas Medical Society Alliance 71st Annual Session

The 71st session of the Arkansas Medical Society Alliance Annual Meeting was held May 1-3 at the Arlington Hotel in Hot Springs. The format of the meeting included a pre-convention board meeting, two general sessions, an installation luncheon and a post-convention board meeting.

Cathy Mackey of Jonesboro presented the AMA-ERF contribution to UAMS on Thursday during the opening session of the House of Delegates for the Arkansas Medical Society. Alliance members attended the opening night reception hosted by Blue Cross Blue Shield of Arkansas.

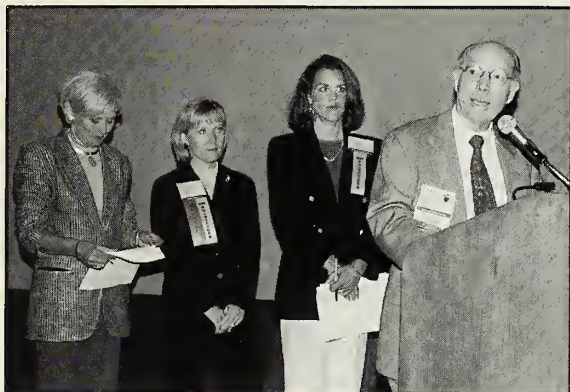
A membership roundtable was held on Friday morning prior to the First General Session of the Alliance with National Field Director Susan Paddock hosting this event. Several Alliance members attended. The past presidents of the Alliance held a breakfast to initiate their newest member, Immediate Past President Evelyn Thomas of Little Rock. The past presidents shared a poem with the group. Dr. Charles Logan, President-elect for the AMS spoke with the Alliance members during the first general session. Dr. John Crenshaw, 1996-97 AMS President, and his wife Donna

were also introduced. Brenda Gullett, motivational speaker and also a physician's spouse, addressed the group about getting involved in the political process. Brenda shared her experiences in politics as a candidate for the school board and a member of the Quorum Court in Jefferson County. The presentation was enjoyed by all. Many Alliance members attended the Shuffield Luncheon with guest speaker Congressman Vic Snyder. Following the luncheon Susan Paddock shared information from the National Alliance Organization. The afternoon was spent sharing in various activities, some at the tennis round robin held at the Hot Springs Country Club and some enjoying the Hot Springs Gallery Walk. The evening concluded with the AMS's Inaugural Banquet and the President's reception and dance.

The Second General Session opened on Saturday morning. Sancy McCool and Gwen Pappas with the Southern Medical Association Auxiliary (SMAA) addressed the Alliance sharing the history and purposes of the SMAA. They invited the Arkansas delegation to be present for the installation of Gwen Pappas as President of the SMAA in November in Charlotte,

North Carolina. The slate of officers for 1997-1998 Arkansas Medical Society Alliance was presented and voted upon. They are as follows: President, Barbara Moody of Salem; President-elect, Lyda Campbell of Little Rock, Vice President for Membership, Ellen Lowery of Little Rock; Vice President for Legislation, Lori Marvin of North Little Rock; Vice President for Health Promotion, Cheryl Pahls of Little Rock; Record-

ing Secretary, Renae Dean of Little Rock and Treasurer, Liz Pollard of Pine Bluff. The officers were installed during the Installation and Awards Luncheon held at the Arlington Hotel. The post-convention board meeting was held immediately following the luncheon with President Barbara Moody presiding.



From left to right: Gwen Pappas of SMAA; Ruth Mabry, 1996-97 AMSA President; Cathy Mackey of AMSA and Dr. Glen Baker during the opening session of the AMS House of Delegates.

The Past Presidents' Club



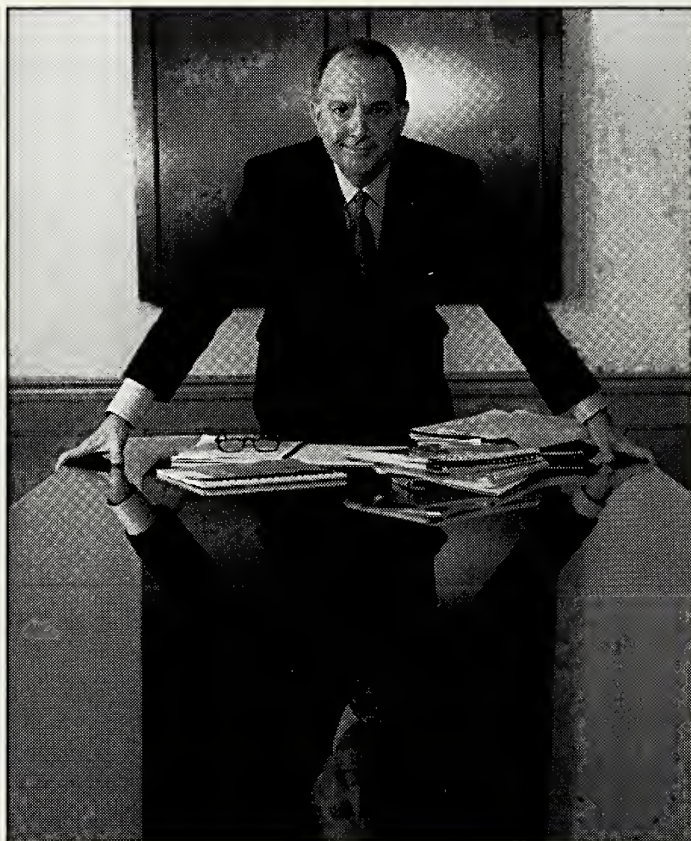
Tennis round robin participants from left to right: Susan Paddack, AMAA field director, Ellen Lowery, 1997-98 AMSA V.P. of Membership, Ruth Mabry, 1996-97 AMSA President, and Anna Clift, 1996-97 Pulaski County Medical Alliance President.

From left to right: Sancy McCool of the SMAA, Ruth Mabry, 1996-97 AMSA President, Susan Paddack, AMAA field director, Gwen Pappas, SMAA President-elect, and Barbara Moody, 1997-98 AMSA President.



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Fifty Year Club



The Fifty Year Club is composed of physicians who, for the past fifty years, have loyally and effectively served the community and, by skill and devotion to high ideals, upheld and maintained the standards of the medical profession.

The following physicians attended the luncheon held at the Arlington Hotel in Hot Springs on May 1: Drs. John Ashley, Gilbert Dean, Martin Eisele, C. R. Ellis, George Fotioo, David Gibbons, James Guthrie, Fred Henker, Ralph Joseph, Agnes Kolb, William Lee, C. C. Long, James Mashburn, J. Warren Murry, Joseph Norton, Frank Padberg, Marvin Rhode, Joseph Rosenzweig, Ben Saltzman, Kenneth Seifert, C. E. Tommy, and Morton Wilson.

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Opportunity for National Certification as a Certified Medical Assistant (CMA) for individuals with one year of medical employment experience.

One test period is available before the window of opportunity closes. (After January 1998, only graduates of CAAHEP accredited medical assistant educational programs will be eligible to take the CMA certifying examination.)

Application deadline: October 1, 1997, for January 30, 1998, examination.

Review text available: Appleton and Lange's Review for the Medical Assistant 4th edition, offers a complete review of all areas included in the examination. This text has detailed answers and explanations for over 1600 review questions and also a section on Test Taking Strategies. Many medical employees have successfully challenged the CMA examination using this review text. The price of the text is \$27.95. To order a copy of this book, call Appleton and Lange Publishers toll free at 1-800-423-1359.

Test application information: The address and toll free number to obtain application materials for certifying are listed in the Test Taking Strategies of the Appleton and Lange Review Text.

1997 Arkansas Medical Society Shuffield Award

Presented Friday, May 2, 1997

to

Wayman Ballard



(From left) Dr. Michael Moody, 1997-98 AMS President-elect, presents the 1997 Shuffield Award to Wayman Ballard.



Wayman Ballard speaks to an audience of AMS members and luncheon guests after receiving the award.

Wayman Ballard, a retired insurance manager of Little Rock, was presented with the 1997 Shuffield Award by the Arkansas Medical Society during the 121st Annual Session at the Arlington Hotel in Hot Springs on Friday, May 2, 1997.

The Shuffield Award is given each year to recognize a non-physician who has made significant contributions to their community in the area of health care. The award is named in honor of the late Drs. Joe and Elvin Shuffield, a father and son team from Little Rock, who devoted their lives to the quality of health care in our state.

Through his involvement in multiple areas of health care, Ballard received the Shuffield Award for his commitment of improving the quality of health care for all Arkansans, particularly senior citizens. Ballard is currently serving on the Board of Directors for the Arkansas Foundation for Medical Care, a state peer review organization for Medicare/Medicaid. He has been an active leader of the organization's Beneficiary Liaison Committee, which in addition to recruiting other lay leaders to be more involved and committed, also educates the public in regard to health, access to health care and patient rights.

Ballard is currently serving on the Advisory Board of Active Years, a monthly magazine for seniors. Additionally, he has served as president of the West Little Rock American Association of Retired Persons (AARP), Assistant State Director of the AARP, counselor of the AARP Medicare/Medicaid Assistance Program and member of Baptist Medical System Geriatric Task Force.

Ballard earned a bachelor's degree in business administration from Henderson State University in 1942. He retired in 1979.

Dr. Harold "Bud" Purdy Memorial Golf Tournament



From left: Stanley Applegate, M.D., Daniel McCoy, M.D., William Golden, M.D. and Bob Sutton.



From left: Mike Townsend, Carl Johnson, M.D., Mark Allard, M.D. and Charles Schock, M.D.



From left: David Barclay, M.D., James McKenzie, M.D., Sha Williamson, Samuel Welch, M.D.



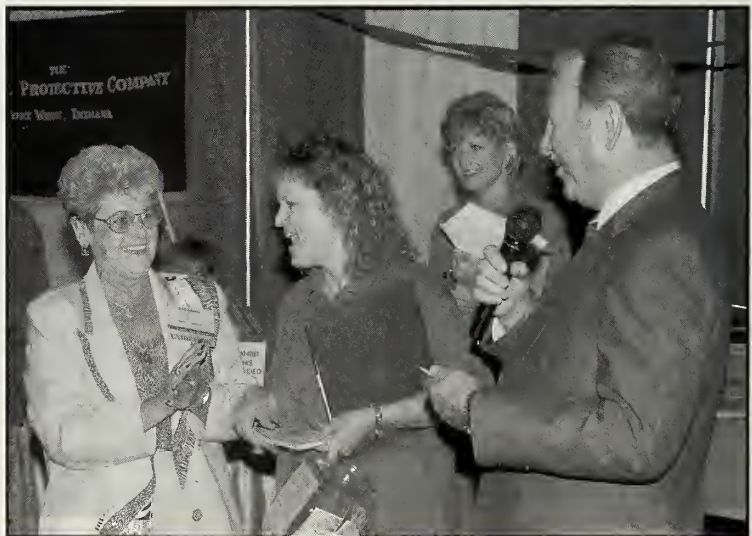
From left: John Rayburn, M.D., Charles Ball, M.D., Don Brandsgaard, Jerry Mann, M.D.

1997 Grand Prize Winners



Thomas Tinnesz, M.D., of Mena, was the grand prize winner of a \$1,000 Worldwide Travel gift certificate for a trip to the destination of his choice.

Donna Crenshaw, of Alpine Industries/Hatchell, won the exhibitor grand prize of \$100.



Annual Session Pics



Dr. Charles Logan, 1997-98 AMS President, with family members.

Dr. Joe Stallings takes a break from all the Exhibit Center excitement.



Dr. Charles Logan and his wife, Joyce, with Dr. John Crenshaw and his wife, Donna.

The exhibit center brings in a full house to view and talk about the latest products and services.



The Opening Night Reception features lots of fun, food and company.

1997 Annual Session Sponsors



*American Investors
Life Insurance Company*



Arkansas Blue Cross Blue Shield



Autoflex Leasing



Boatmen's National Bank of Arkansas



First Commercial Bank



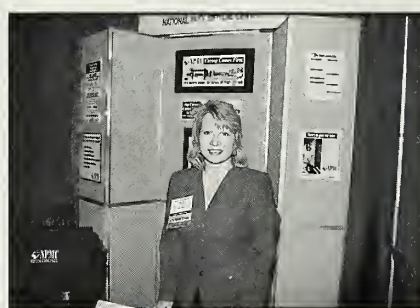
First Commercial Trust Company



Freemyer Collection System



Janssen Pharmaceuticals



National Park Medical Center



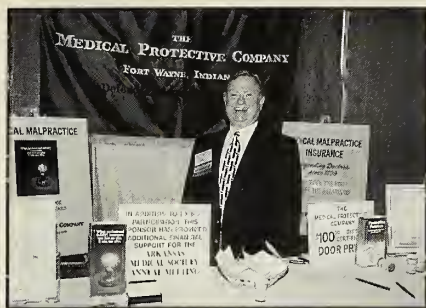
Schering Corporation



Southern Medical Association



*State Volunteer
Mutual Insurance Company*



The Medical Protective Company



The St. Paul Companies

Sponsor not pictured is *Rhone-Poulenc Rorer Pharmaceuticals*

Thank You!

1997 Arkansas Medical Society Annual Session Sponsors

The AMS Annual Session would not be possible without the support of our sponsors. The Society thanks the following for their support of the 121st Annual Session:

American Investors Life Insurance Company (Early Morning Rereshments)

Arkansas Blue Cross Blue Shield (Co-sponsor of Opening Night Reception)

Autoflex Leasing (Program Back Cover)

Boatmen's National Bank of Arkansas (Welcome Reception)

First Commercial Bank (Continental Breakfast)

First Commercial Trust Company (Educational Grant)

Freemyer Collection System (Educational Grant)

Janssen Pharmaceuticals (Hospitality Hour)

National Park Medical Center (President's Reception and Dance)

Rhone-Poulenc Rorer Pharmaceuticals (Educational Grant)

Schering Corporation (Golf Tournament)

Southern Medical Association (Co-sponsor of Opening Night Reception)

State Volunteer Mutual Insurance Company (Afternoon Break)

The Medical Protective Company (Session Portfolios)

The St. Paul Companies (Educational Grant)

1997 Annual Session Exhibitors

Thank you for being a part of our 1997 convention!

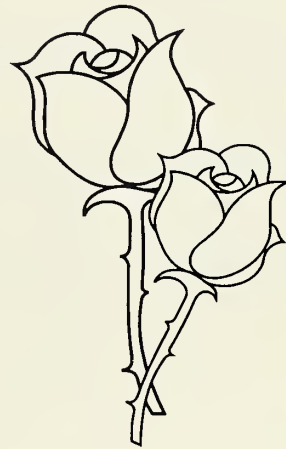
Abbott Laboratories	National Medical Systems
Alltel Mobile	National Park Medical Center
AMS Benefits, Inc.	Novartis Pharmaceutical
Ancil Lea Consulting, Inc.	Olsten Health Services
Arkansas Army National Guard Medical Recruiting Team	Orthotic & Prosthetic Providers, Inc.
Arkansas Blue Cross Blue Shield	Parke-Davis
Arkansas Foundation for Medical Care, Inc.	Pfizer Labs
Arkansas Health Care Access Foundation	Roerig Laboratories
Arkansas Managed Care Organization	Pratt Pharmaceuticals
Autoflex Leasing	Procter and Gamble Pharmaceuticals
Bio-Tech Pharmacal	Professional Consulting Services, Inc.
Boatmen's Bank	Rebsamen Insurance Company
Columbia Health System of Arkansas	Rebsamen Regional Medical Center
Computer Literacy of Arkansas	RehabCare Group
Disability Determination for Social Security	Reynolds & Reynolds Healthcare Systems Division
Eli Lilly and Company	Roche Laboratories
First Commercial Trust Company	Sanofi Pharmaceuticals
First Commercial Bank	Schering Corporation
Freemyer Collection System	Schering Oncology/Biotech
Geriatric Mental Health Services	Snell Prosthetic & Orthotic Laboratory
Hoechst Marion Roussel, Inc.	Southern Medical Association
Holt-Krock Clinic	St. Vincent Infirmary-PET/Positron Imaging Service
Hot Springs Rehabilitation Center/Hospital	St. Vincent Infirmary Medical Center
Jefferson Regional Medical Center	State Volunteer Mutual Insurance Company
Key Pharmaceuticals	The Sterling Healthcare Group
Lifetime Therapy Assoc.	Rotech Medical Corporation
May Construction Company	The Doctors' Company-Chandler Sampson Ins., Inc.
Medical Merchandising, Inc.	The Medical Protective Company
Mercantile Bank	The St. Paul Companies
Merck and Company	Timber Ridge Ranch NeuroRehabilitation Center
Merrill Lynch	UAMS Medical Center
Moore Stephens Frost	US Air Force
Myers Loveless Brandsgaard, Inc.	World Lynx

In Memoriam

The following members of the Arkansas Medical Society and Arkansas Medical Society Alliance were remembered during the 1997 AMS Annual Session.

Society Members:

William W. Abbott, MD, Little Rock
James D. Armstrong, MD, Ashdown
Robert Benafield, MD, Conway
Eaton W. Bennett, MD, Little Rock
Robert S. Bryles, MD, Little Rock
Jerry Chapman, MD, Cabot
George H. Collier Jr., MD, Paragould
Neil E. Crow Sr., MD, Fort Smith
Maurice Elovitz, MD, Horn Lake, Mississippi
Guy R. Farris, MD, Little Rock
John F. Guenthner, MD, Mountain Home
Robert W. Hunter, MD, Magnolia
Charles H. Kennedy, MD, North Little Rock
W. Payton Kolb, MD, Little Rock
Harold J. Morris, MD, Memphis, Tennessee
Joe C. Parker, MD, Springdale
William J. Roberts, MD, Charleston
Joe G. Shelton Jr., MD, Ashdown
Vance M. Strange, MD, Stamps
Walton R. Warford, MD, Little Rock



Alliance Members and Spouses:

Mrs. Lloyd Bess (Jane), Batesville
Mrs. Glenn E. Dickson (Patricia), Jonesboro
Mrs. Edgar Easley (Norma), Little Rock
Mrs. John T. Herron (Katherine), Little Rock
Mrs. Jim McKenzie (Mary Wood), Hope
Mrs. Cecil Parkerson (Carolyn), Hot Springs
Mrs. Dan Riner (Suzanne), Springdale
Mrs. D. Harvey Shipp (Katherine "Kay"), Little Rock
Mrs. Eumar Tagupa (Kimberly), Jonesboro



State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Tickborne Disease Update

1996 saw tickborne diseases continue as potential problems for Arkansans who want to enjoy outdoor activities (Fig. 1). Cases of tularemia, Rocky Mountain Spotted Fever (RMSF), Lyme disease (LD), and ehrlichiosis were reported throughout the year. Tickborne diseases are reported in residents of all areas of the state (See map).

As is typical of tickborne disease statistics, 1996 data show that cases were more likely to occur in the spring and early summer months (Fig. 2), and were reported more frequently in children than in adults (Fig. 3).

During 1992-1996, a mean annual total of 22 cases of RMSF was reported, and 22 cases were reported during 1996. This disease, characterized by fever, headache, myalgia and a late rash which begins on the extremities, is the most potentially lethal of the tickborne diseases. Prompt treatment with appropriate antibiotics minimizes the risk of serious outcomes, however. Both tetracyclines and chloramphenicol are effective. The antibiotic should be administered for 5 to 7 days, and for at least 48 hours after the patient is afebrile.

Arkansas has often led the United States in tularemia reports, with approximately one-fourth of the national total. Tularemia is no longer being reported to the CDC by many states, but from 1992-1996, only Missouri, with 34 cases in 1992, would have exceeded the 24 cases reported in Arkansas in 1996. Tularemia is more likely to be diagnosed throughout the year than LD, RMSF, or ehrlichiosis. This is due to its transmission to hunters or other persons who handle meat from infected animals. The most common tularemia form seen continues to be ulceroglandular, but pulmonary and typhoidal forms are also seen. Streptomycin or gentamycin is the drug of choice, and should be given for 7-14 days. Tetracyclines may be effective when given for 14 days, but relapses are more common. One tularemia case resulted in death during 1996.

Lyme disease is uncommon in Arkansas, although 27 cases met the CDC surveillance case definition in 1996. Unlike LD cases nationally, few children met the case definition. The current case definition recognized by the CDC requires either a) the presence of erythema migrans or b) at least one late manifestation that is laboratory confirmed. Laboratory confirmation includes demonstration of immunoglobulin M (IgM) or IgG antibodies to *B. burgdorferi* in serum or cerebrospinal fluid. A two-step approach using both a sensitive EIA or immunofluorescence followed by a Western blot test is recommended. This is especially true in low incidence areas such as Arkansas, where false positive screening tests are likely to occur.

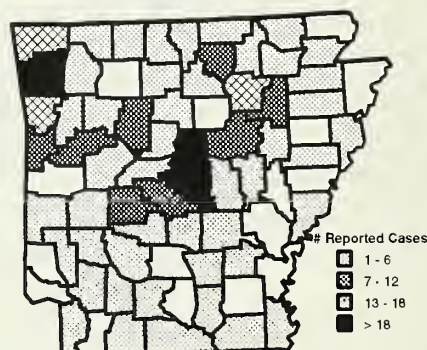
Seven cases of ehrlichiosis were reported in 1996.

This is undoubtedly much lower than the true number of infections, due both to prompt treatment of fevers following tick bites and to infrequent serologic testing of patients.

Physicians are urged to consider tickborne diseases when patients present with a febrile illness and report a recent tick bite. Rickettsial serology tests should include ehrlichia, typhus, and RMSF tests. The variable presentation of tularemia includes forms not transmitted by ticks, and tularemia should be included in the differential diagnosis of febrile illness following outdoor activities including exposure to game meats or water which may be contaminated.

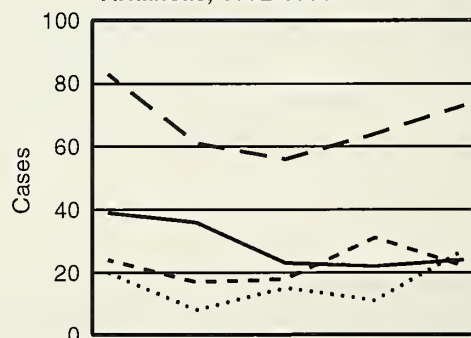
For reporting diseases to the Arkansas Department of Health, a toll-free number (800-482-8888) is available 24 hours. Individuals who wish to obtain information about diseases in Arkansas or speak to the Epidemiology Division may do so by calling (501)661-2893 or (800)554-5738.

Reported Cases of Tickborne Diseases* in Arkansas, 1992 - 1996



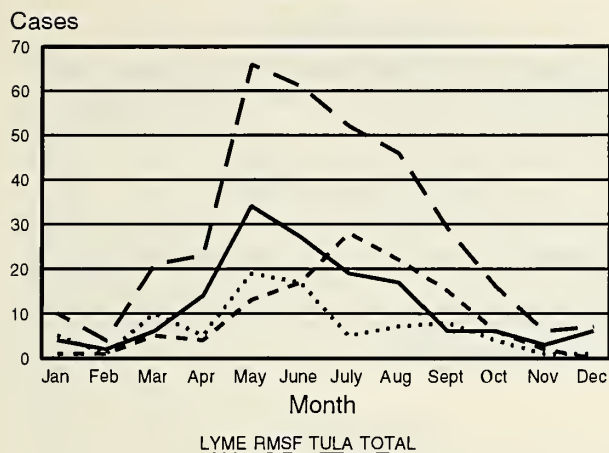
* Includes Lyme Disease, RMSF and Tularemia

Figure 1. Tickborne Diseases in Arkansas, 1992-1996

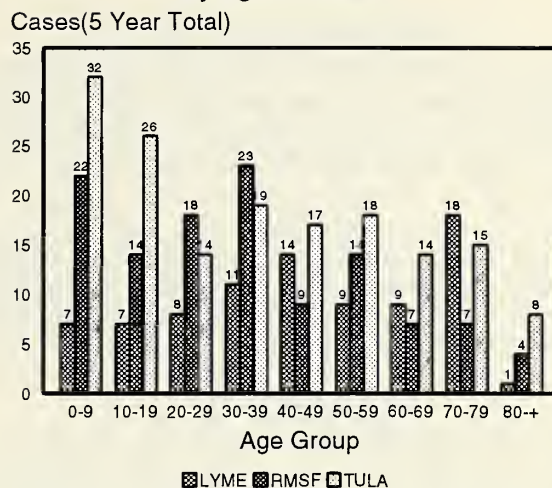


Year	1992	1993	1994	1995	1996
Lyme ...	20	8	15	11	27
RMSF - - -	24	17	18	31	22
Tula — — —	39	36	23	22	24
Total - · -	83	61	56	64	73

**Figure 2. Arkansas Tickborne Diseases
By Month of Occurrence
1992-1996**



**Figure 3. Tickborne Diseases in
Arkansas, 1991-1995
By Age of Patient**



Reported Cases of Selected Diseases in Arkansas Profile for March 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases March 1997	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	6	30	30	241	30	153
Giardiasis	18	45	30	182	29	131
Shigellosis	7	30	19	176	27	176
Salmonellosis	14	37	50	455	35	338
Hepatitis A	28	73	149	503	56	663
Hepatitis B	2	15	32	88	17	83
HIB	0	0	0	0	1	1
Meningococcal Infections	6	18	15	35	15	39
Viral Meningitis	2	7	8	38	2	33
Lyme Disease	0	0	4	27	2	12
Rocky Mountain Spotted Fever	0	0	1	22	0	31
Tularemia	2	2	2	20	1	22
Measles	0	0	0	0	2	2
Mumps	0	0	0	1	3	6
Gonorrhea	414	1231	1220	5050	1156	5437
Syphilis	54	137	247	706	252	1017
Legionellosis	0	0	0	1	2	8
Pertussis	0	2	1	15	7	59
Tuberculosis	9	29	32	225	41	271

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

New Members

BLYTHEVILLE

LoCascio, Paul Andrew, General & Laparoscopic Surgery. Medical Education, University of California, Irvine, 1964. Internship/Residency, U.S. Naval Hospital, San Diego, Calif., 1965/1970. Board certified.

CONWAY

Baker, David Littleton Jr., Ophthalmology. Medical Education, UAMS, 1988. Internship/Residency, Vanderbilt University School of Medicine, Nashville, TN, 1989/1994. Board certified.

EL DORADO

Dietzen, Richard Edward, Pulmonary/Internal Medicine. Medical Education, University of Tennessee. Internship, University of Florida, 1981. Residency, Medical University of South Carolina, 1983. Fellowship, Loma Linda University School of Medicine, 1987. Board certified.

JONESBORO

Leaird, Kimberly, Rheumatology. Medical Education, Medical University of South Carolina, Charleston, 1988. Internship, Duke University School of Medicine, Durham, N.C., 1990. Residency/Fellowship, Medical University of South Carolina, 1992/1994. Board certified.

LITTLE ROCK

Rosenzweig, Thomas Edmond, Pathology. Medical Education, Medical College of Wisconsin, Milwaukee, 1989. Internship, Butterworth Hospital, Grand Rapids, Michigan, 1991. Residency, Medical College of Ohio, 1995.

Wright, John William, Anesthesiology. Medical Education, UAMS, 1990. Internship, St. Louis University Hospitals, 1991. Residency, UAMS, 1997.

MENA

Perry, Karen Anne, Adult Neurology. Medical Education, University of New Mexico, Albuquerque, 1985. Internship, Good Samaritan/VA, Phoenix, Arizona, 1986. Residency, UAMS, 1990.

PINE BLUFF

Chodimella, Vidyasagar, Internal Medicine. Medical Education, Andhra Medical College, India, 1979. Internship/Residency, Neoucom Affiliated Hospital, Canton, Ohio, 1994/1996. Board certified.

SEARCY

Muirhead, Michael James, Hematology-Oncology. Medical Education, University of Alabama, Birmingham, 1974. Internship/Residency, University of Tennessee, Memphis, 1975/1978. Board certified.

SHERIDAN

Highsmith, William Artis, Family Practice. Medical Education, UAMS, 1993. Internship/Residency, AHEC-Pine Bluff, 1994/1996. Board certified.

WEST MEMPHIS

Gregory, Sandra Lynn, Radiation Oncology. Medical Education, UMDNJ - Robert Wood Johnson, Piscataway, New Jersey, 1990. Internship, UMDNJ - Cooper Hospital, 1991. Residency, Montefiore Hospital, 1995. Board certified.

RESIDENTS

Ahart, Cheryl Lynn, Pediatrics. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Arnold, James R., Family Practice. Medical Education, UAMS, 1997. Residency, AHEC - Jonesboro.

Banning, Michelle Shelly Jean, Family Practice. Medical Education, UAMS, 1997. Residency, AHEC South - El Dorado.

Baltz, Tracy Clement, Ophthalmology. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Braden, Chad, Medical Education, UAMS, 1997. Internship/Residency, AHEC-Pine Bluff.

Crisp, Constance, Neurology. Medical Education, UAMS, 1981. Residency, UAMS.

Engelkes, LaDonna Dichelle, Family Practice. Medical Education, UAMS, 1997. Residency, UAMS.

Gunther, Bernadette Audra, Family Practice. Medical Education, UAMS, 1997. Internship, UAMS.

Harris, John E., Family Practice. Medical Education, UAMS, 1997. Residency, AHEC-Pine Bluff.

Harris, Julie A., Obstetrics/Gynecology. Medical Education, UAMS, 1997. Residency, UAMS.

Johnston, Carol Lynette, Pediatrics. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Knight, Patrick Revere, Orthopedic Surgery. Medical Education, University of Alabama, Birmingham, 1995. Internship, University of Tennessee, Chattanooga. Residency, UAMS.

Lawrence, George Stephen, Family Practice. Medical Education, UAMS, 1997. Internship, UAMS.

McClain, Charles Morris, III, Radiology. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

McGee-Reed, Ivy Valencia, Family & Community Medicine. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Nelson, Elizabeth Buffalo, Family Practice. Medical Education, UAMS, 1997. Residency, UAMS.

Netherland, Clinton Avery, Family Practice. Medical Education, UAMS, 1997. Residency, AHEC-El Dorado.

In Memoriam

Joe G. Shelton, Jr., M.D.

Dr. Joe G. Shelton, Jr., of Ashdown died Saturday, April 12, 1997. He was 75. He was preceded in death by his wife, Elizabeth Anne "Ippy" Shelton, July 6, 1985. He is survived by his two daughters and sons-in-law, Annie and Doke Douglas of Ashdown, and Peggy Lee and Larry Davis of Ashdown; two brothers and sisters-in-law, Jack and Doris Shelton of Texarkana, Arkansas, and Dick and Juanita Shelton of Ashdown; five grandchildren, Dodie Adams, Genie Davis, Ben Davis, Brien Douglas and Joe Douglas; great-granddaughter Sarah Adams.

Charles H. Kennedy, M.D.

Dr. Charles H. Kennedy of North Little Rock died Friday, April 25, 1997. He was 71. He was preceded in death by his wife, Margaret Bass Kennedy. He is survived by his mother, Blanche Nelson Cutting of Houston, Texas; sister, Betty Ann Mitchell of Smackover; son, Charles Ray Kennedy of North Little Rock; daughter, Mrs. Cheri Cloud of Russellville; and grandsons, Kyle Kennedy of North Little Rock and Corey and Joshua Cloud of Russellville.

Things To Come

July 7-10

17th Annual Current Concepts in Primary Care Cardiology. Hyatt Regency Lake Tahoe, Incline Village, Nevada. Sponsored by UC Davis School of Medicine and Medical Center, Division of Cardiovascular Medicine and Office of Continuing Medical Education. For more information, call (916) 734-5390.

July 12-18

22nd Annual National Wellness Conference. University of Wisconsin, Stevens Point, Wisconsin. For more information, call (800) 243-8694.

September 4-6

International Symposium on Gasless Laparoscopy. Bochum, Germany. Sponsored by the American Association of Gynecologic Laparoscopists. For more information, call 1-800-554-2245.

September 5-7

4th Annual Current Topics in Cardiothoracic Anesthesia. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

September 18-20

Contemporary Cardiothoracic Surgery. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

September 23-28

International Congress of Gynecologic Endoscopy/AAGL 26th Annual Meeting. The Washington State Convention & Trade Center, Seattle, Washington. Sponsored by the American Association of Gynecologic Laparoscopists. For more information, call 1-800-554-2245.

October 15-19

2nd Annual CME Course - Infectious Disease '97 Board Review: A Comprehensive Review for Board Preparation. The Ritz-Carlton, Tysons Corner, McLean, Virginia. Sponsored by The Center for Bio-Medical Communication, Inc. For more information, call (201) 385-8080.

October 26-30

1997 State-of-the-Art Conference: Occupational and Environmental Medicine. Nashville, Tennessee. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call (847) 228-6850, ext. 152.

November 13-14

23rd Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

AMS Sponsors Workshops in Little Rock



October 16, 1997

Managed Care Update:

Advanced Strategies for Practice Survival

This workshop will show you how to become more proactive in the managed care marketplace. Numerous case examples will be used to illustrate the following topics:

- * getting into the better plans *
- * tracking managed care plan results *
- * reorganize some of the staff jobs *
- * learn about outcome studies *
- * determine ways to reduce practice overhead in a reduced-reimbursement environment *

December 4, 1997

Coding Analysis to Maximize Reimbursement in 1997

A hands-on workshop with informative case studies. Major emphasis is on the complex relationship between the procedure, the diagnosis, place of service, provider status and patient financial class for traditional and non-traditional (HMO/PPO) claims processing. Workshop requires a background in the basics of CPT, ICD-9 and the HCFA-1500.

For more information call 501-224-8967

Keeping Up

October 3 - 5

Primary Care Update (Management of Top 20 Ambulatory Diagnoses). Location: Gaston's Lodge on the White River. Sponsor: Washington Regional Medical Center. For more information, call 501-442-1823 or 1-800-422-0322.

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

General Internal Medicine Review, Wednesdays, 12:00 noon, Room 238 Bldg. 1
Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Tuesdays, 1:00 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.

Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Cardiology Conference, dates vary, 7:00 p.m., locations vary
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Geriatrics Conference, 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.
Tumor Conference, 4th Tuesday, 12:00 noon, Medical Center of South AR, Warner Brown Campus
Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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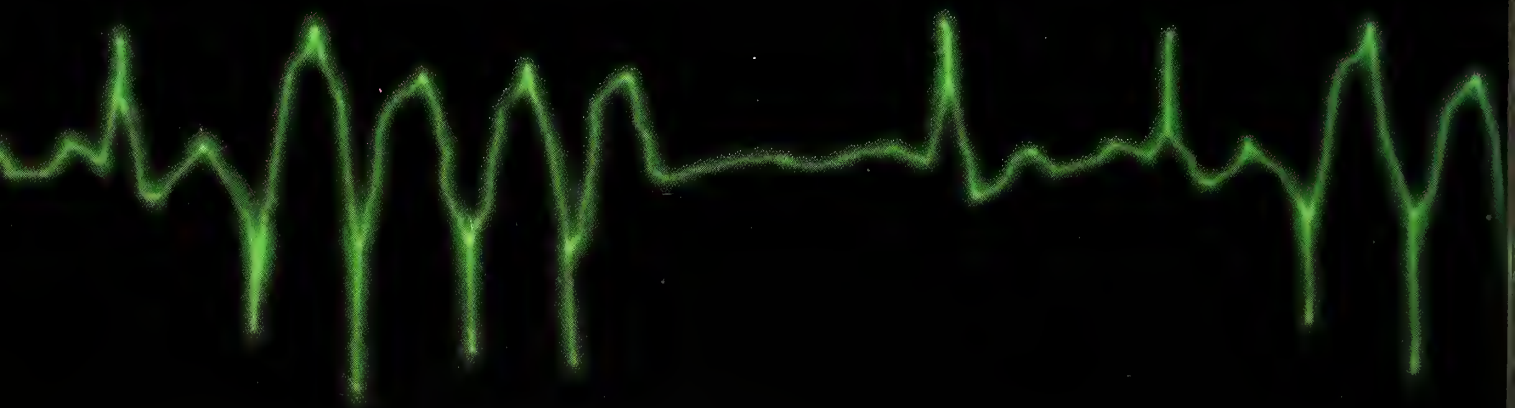
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Number 2

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Arkansas Democrat Gazette

SUNDAY

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medical related
legislation and the 81st
Arkansas General
assembly...

How will you and your
patients be affected?

AS MEDICAL SOCIETY
LEGISLATIVE UPDATE

February 7, 1997
SUCCESSFUL "DAY AT THE CAPITOL"
... followed by lunch featuring the
Public Health Committee ... moving to the Capitol for legislative
... and concluding with an exciting legislative reception at the
... Center, Arkansas physicians, clinic managers, and spouses
Wednesday participating in the legislative process. Special thanks
... and for those who didn't ... you missed a productive and fun day.
URGE SUPPORT FOR BREAST CANCER ACT
... introduced SB 320, "The Breast Cancer Act of 1997." This
... per pack tax on tobacco products with the revenue dedicated to breast
... n, detection, treatment and research. Every physician and spouse should
... legislators and encourage their support for this important public health proposal.
... ve Josetta Wilkins of Pine Bluff will introduce the companion bill in the
... House of Representatives.
... telephone Number: 682-2902 House Telephone Number: 682-6211

BELIEVE IT OR NOT!!!
SENATE COMMITTEE APPROVES BILL REMOVING
MOTORCYCLE HELMET LAW
... 227 by Senator George Hopkins and 10 co-sponsors, including five on the Transpor-
... ion Committee, gave a do-pass recommendation to a bill which removes the age-old
... requirement that all motorcycle riders and passengers must wear protective headgear. The
... still requires persons under 21 to wear them. This bill has always been defeated in the
... Public Health Committee, but a procedural maneuver by the sponsor placed it in our
... Transportation reporting service. PLEASE CONTACT YOUR STATE SENATORS AND
... REPRESENTATIVES IMMEDIATELY and tell them that for both financial reasons and
... especially public health reasons they must oppose SB 227.

URGE SUPPORT FOR MENTAL HEALTH PARITY
Representative Ray Stalnaker has introduced HB 1525, "The Mental Health Antidis-
crimination Act," which requires that insurance coverage for mental illness be available
and equal to benefits for physical illnesses. Thousands of patients suffering from mental
illness face discrimination in their treatment due to severe limits, non-coverage, or
unrealistic co-payments required by insurance companies.

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KEY LEGISLATIVE ACTIONS DURING
THE 81ST GENERAL ASSEMBLY

Although the General Assembly has not officially adjourned, final action has been seen on most of
the legislative proposals that we were following. A complete and final report will be presented at the
AMS Annual Session, May 1-3, in Hot Springs and in an upcoming issue of the AMS Journal. A short
opsis of many of the key issues addressed during the session is listed below. For additional
information on these Acts or any other legislation, contact Lynn Zeno Director of Governmental
Affairs at (501) 224-8967 or 1-800-542-1058.

LEGISLATIVE HIGHLIGHTS

Arkansas Healthcare Consumer Act - It requires insurers to provide minimum
coverage for maternity benefits; requires constructive surgery plus minimum length of stay
prohibits insurance contract "exclusion clauses"; requires insurance company disclosure of
and deselection criteria; and much more.

Out of State Physicians Licensure - It requires out-of-state physicians who,
in connection with a patient care service initiated in this
state, perform a physical examination or the interpretation of pathological
specimens for a patient care service.

Arkansas State Medical Board - It provides sales tax exemption for all prescription drugs
used in the treatment of patients (currently, only exempt for oncologists).

Arkansas Kids First Program - It establishes ARKids First Program to provide health care
for children under 21 who are not covered by other private insurance plans.

Arkansas Pregnancy Protection Act - It provides civil immunity to physicians who volunteer
their services to other tests currently required of pregnant women.

Arkansas Breast Cancer Act - It provides civil immunity to physicians who volunteer
their services for breast cancer detection, education,
and treatment in the implementation of a 2%
deduction for breast cancer detection, education,
and treatment of mental illness and developmental disorders.

Arkansas Diabetes Act - It requires insurance companies to cover diabetes self-
management - Although narrow in scope, this bill is a step
toward the implementation of a 2%
deduction for diabetes self-
management, supplies, and services for treatment of diabetes.

Decision - See Editorial on page 60 and Special Article on page 73 • AMS Doctors
out - page 70 • Hospital was prepared for Total Facility Evacuation - page 76

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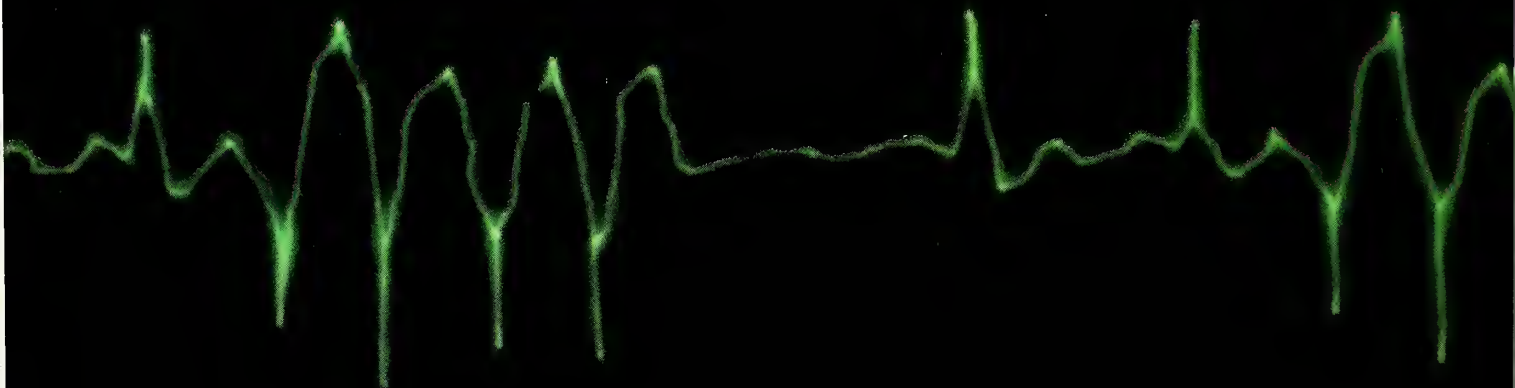
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THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Volume 94 Number 2

July 1997

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Cover design created by Tina Wade features medical related news published during the 1997 Legislative Session.

Circumcision

Could We All Get on the Same Page Please

Jerry Byrum, M.D.

In this issue of *The Journal of the Arkansas Medical Society*, Drs. John Redman and Joe Elser discuss a timely subject, the anatomic contraindications to neonatal circumcision. Those physicians who perform neonatal circumcisions would do well to understand these contraindications to help prevent complications.

Despite various statements by American and international medical societies discouraging it, neonatal circumcision continues to be the most frequently performed surgery in our country, although its frequency has diminished somewhat in the last 25 years. From an estimated peak of a 90-95% circumcision rate in newborn boys in 1970 to an estimated rate of 62.7% in 1994 (National Center for Health Statistics, Department of Health and Human Services), the circumcision rate has probably fallen during this time period by about one-third. The subject of neonatal circumcision has been of interest to me since 1988 when I prepared a review of the subject as my research project in pediatric residency.

In many of my interactions with physicians regarding counseling patients and parents on neonatal circumcision, I find that many of us are not on the same page on this subject. Most physicians reference the stance of the American Academy of Pediatrics (AAP) on circumcision as the official stance of the American medical community on circumcision of the newborn. However, we have to ask ourselves which statement we are talking about. The problem is that the American Academy of Pediatrics has issued four statements regarding neonatal circumcision. In addition, a joint statement was made by the American Academy of Pediatrics and the American College of Obstetrics and Gynecology in 1983. Each of these statements have been a little different from previous statements, with different language and conclusions. It is no wonder there is confusion as to the current "official" stance of the American medical community on this issue at the present time. The purpose of this editorial

is to summarize the various statements that have been made by the American Academy of Pediatrics on neonatal circumcision to this point and provide a brief update on upcoming events on the subject.

In 1971, the Committee on the Fetus and Newborn of the American Academy of Pediatrics released its first statement regarding the advisability of neonatal circumcision in the publication *Standards and Recommendations for Hospital Care of Newborn Infants*.¹ In summary, on page 110, the committee stated, "there are no valid medical indications for circumcision in the neonatal period."

The next statement by the Academy came in 1975. An ad hoc committee of the committee on the Fetus and Newborn of the AAP was chosen to review the data to support arguments "pro" and "con" for circumcision of the newborn. In this report,² the authors concluded, "there is no absolute indication for routine circumcision of the newborn." The statement however also included the following: "Nevertheless, traditional, cultural and religious factors play a role in the decision made by parents, pediatrician, obstetrician, or family practitioner on behalf of a son. It is the responsibility of the physician to provide parents with factual and informative medical options regarding circumcision. The final decision is theirs, and should be based on true informed consent." The document listed several benefits and complications of circumcision. The benefits of neonatal circumcision were listed as prevention of phimosis and its need for circumcision later in life in 2-10% of uncircumcised males; facilitation of hygiene; prevention of penile cancer; and prevention of balanitis. The hazards of circumcision included "local infection which may progress to septicemia, significant hemorrhage and mutilation. Incomplete removal of the prepuce may result in phimosis."

The next statement of the AAP was in 1977 in the Sixth Edition of the *Recommendations for Hospital Care of Newborn Infants*.³ The conclusion was "there are no medical indications for routine circumcisions, and the procedure cannot be considered an essential component of health care."

* Dr. Byrum, an editorial board member of *The Journal of the Arkansas Medical Society*, is a Pediatrician with the All For Kids Pediatric Clinic in Little Rock.

Then, in 1982, information regarding the association of the uncircumcised state with urinary tract infections began to be reported. Ginsburg and McCracken⁴ reported a case series of 109 infants in whom urinary tract infection developed between 5 days and 8 months of age. In their series, male infants predominated and 95% of those were uncircumcised.

In 1985, Wiswell, Smith and Bass⁵ reviewed a cohort of 5,261 infants born at U.S. Army hospitals and found a higher incidence of UTI among the uncircumcised male infants (4.12%) than among those who were circumcised (0.21%). Subsequent review of the records of 427,698 infants in U.S. Army hospitals worldwide supported these findings. There was a ten-fold higher incidence of UTI among uncircumcised boys (1.03%) than among circumcised boys (0.10%).⁶

Largely in response to the UTI issues raised above, the American Academy of Pediatrics convened a task force on circumcision. In 1989, they issued an addendum to the previous statements on circumcision by the committee on the Fetus and Newborn. In the addendum, the task force again listed the benefits of circumcision. These included prevention of phimosis, paraphimosis, and balanoposthitis. Also, cancer of the penis, estimated to affect 1 in 600 uncircumcised U.S. men in their lifetime, would be virtually eliminated by circumcision in the newborn period. Urinary tract infections in infant boys would be reduced by circumcision, although the statement questioned the validity of the UTI studies. The addendum also went into detail about controlling the pain of circumcision, how to administer local anesthesia and gave technical information on how to perform circumcision with various devices. Contraindications to circumcision were defined as a sick or unstable infant, an infant with penile anomalies or an infant with abnormal clotting studies with a family history of bleeding disorders. The contents of this addendum gave the reader the implied impression that circumcision was being endorsed. Why else, would one give such details on how to do the procedure.

This 1989 addendum document was taken by many as a reversal of the position of the American Academy of Pediatrics on the circumcision of newborn boys. Several newspapers even printed stories to that effect. However, this document was an addendum to the 1971 and 1975 documents described above. "There is no absolute medical indication for routine circumcision of the newborn," is still the official policy of the AAP to this date. This document of 1989 was in essence a "limited reversal," a crack in the door, if you will, to partially sanction circumcision. However, it was not a reversal of the AAP position on this subject. The final paragraph of the 1989 addendum reads, "Newborn circumcision has potential medical benefits and advantages as well as disadvantages and risks. When

circumcision is being considered, the benefits and risks should be explained to the parents and informed consent obtained."

Since then, the American Academy of Pediatrics has recognized that the most recent 1989 statement has left some confusion as to the official position of the academy. In order to address this and new studies on the benefits and risks of circumcision, a new task force on the circumcision of newborns has been formed and is meeting this year to discuss this issue. Therefore, soon we can expect further statements on the age old debate.

The new task force will have its work cut out for it. Different groups against neonatal circumcisions have organized themselves and are quite vocal. Organizations such as the National Organization of Circumcision Information Resource Centers (NOCIRC) have developed materials and websites to discuss reasons not to circumcise newborn boys. The main objection of most of the groups is that the foreskin has three important functions which are lost at circumcision: protective, sensory and sexual. At circumcision, 20-80% of penile erogenous tissue is lost, leading in their opinion to impaired sexual sensitivity. In addition, the foreskin protect the glans from trauma, injury and the development of desensitization. Some physicians performing circumcisions have tried to compensate for this by doing partial circumcisions. Unfortunately, this may not protect against penile cancer and UTI, and the procedure itself, can cause phimosis. One would ask, why do the circumcision at all if the benefits are lost? When one adds to the above all the potential complications of circumcision which include bleeding, pain, infection, anesthesia complications, surgical mistakes and even rarely, death, the benefits of circumcision need to be weighty to justify its use.

Those who favor the use of neonatal circumcision do believe that the benefits of circumcision are weighty. On the pro side, there are the studies which show that UTI is less common in boys who are circumcised. Some of these episodes of UTI may lead to kidney scars and some may even lead to sepsis and/or meningitis. Currently, the incidence of UTI in uncircumcised infant boys is about 1%.⁶ To update since the 1989 addendum, in 1993 Wiswell et al⁷ reported the incidence of UTI in infant girls to be 0.52%. In addition, they reported a temporal association between a decrease in the circumcision rate and an increase in the UTI rate among boys in the early 1980s coinciding with the drop in the circumcision rate. During this time there was no concurrent change in the incidence among girls, and the ratio of the incidence of UTI among boys to that among girls during early infancy shifted toward a predominance among boys. Other studies by Herzog,⁸ Roberts⁹ and Lohr¹⁰ all point to increased UTI in uncircumcised boys. There is little doubt about this association

at present. What there is debate about, is if a 1% UTI rate is significant enough to justify neonatal circumcision on a routine basis.

Other benefits of circumcision include the prevention of penile cancer in circumcised males. The lifetime risk of penile cancer in an uncircumcised U.S. man is about 1 in 600 men. Other factors such as penile hygiene also play a role in this. There are also arguments that neonatal circumcision may prevent certain sexually transmitted diseases. This issue has been hotly debated. Neonatal circumcision prevents phimosis, paraphimosis and the need for therapeutic circumcisions later in life, which are needed in 2-10% of uncircumcised men. Also balanitis and posthitis are less frequent in circumcised men. When the same data are analyzed by the two groups in the pro and con sides to circumcision, very different conclusions are reached.

The problem that we as practitioners face is this. How do you explain all these factors to expectant parents and patients in the time constraints that we face? Lengthy position papers have been written on this topic and yet reasonable people can still disagree on the results. How do we give parents enough information to make informed consent? AND, if they had all the information, would all that information really make the difference? One expectant mother was interviewed for a newspaper article on circumcision. This is what she said, "I can very easily see where the decision to circumcise is a weak one, but I think emotionally, inside, I feel it's the right decision to make. There are still cultural things we adhere to. You know, I shave my legs. People in other countries don't do that. Why do I do it? Because that's what American women do."

My evaluation of the risks and benefits of neonatal circumcision is that the risks and benefits seem to balance each other. I don't think that either decision is a wrong one. There are advantages and disadvantages to both sides. For what it is worth (which I realize is not much), I would have my newborn son circumcised. For me, it's still the American thing to do. But in our interaction with parents and patients, let's all get on the same page. The American Academy of Pediatrics doesn't recommend neonatal circumcision, but it's the parents who must decide for themselves. Let's give them the information they need.

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Medicine in the News

Health Care Access Foundation

As of June 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 12,688 medically indigent persons, received 24,104 applications and enrolled 46,868 persons. This program has 1,755 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

A Message from ADH to Combat Antibiotic-resistant Strains of Bacteria

The Arkansas Department of Health would like you to know about a statewide information campaign to combat the rapid emergence of antibiotic-resistant strains of bacteria. This is part of a national effort initiated by the Centers for Disease Control and Prevention (CDC) to address the threat of emerging infectious diseases. Other groups in this effort include the Association of State and Territorial Health Officials, the National Public Health Information Coalition (NPHIC), various medical groups and many state health departments.

The Arkansas campaign will include a television PSA, a "Keeping Your Hometown Healthy" newspaper column, fact sheets and a press release. The messages stress actions everyone can take to protect themselves and their families, including:

- Antibiotics should be used only for bacterial infections.
- Colds and most coughs and sore throats are caused by viruses and should not be treated with antibiotics.
- When prescribed, antibiotics should be taken as directed and the full course completed. If you miss a dose or stop taking the medicine early, the strongest, most resistant bacteria are left to multiply.
- Antibiotics should never be stockpiled or shared.

We hope that you will join this campaign to prevent a public health crisis where there is widespread sickness and death from once-curable diseases. By working together, we can educate patients on the difference between viruses and bacteria and why in some cases taking antibiotics can be harmful rather than helpful.

Information provided by the Arkansas Department of Health. If you have any questions or need additional information, contact the health department at 661-2000.

Disciplinary Action Bulletin - Arkansas State Board of Nursing

The nurses listed in this bulletin have had disciplinary action taken against their licenses. When a nurse's license to practice nursing is revoked or suspended, return of the license to the Board Office is requested; however, licenses may not be returned. Also, individuals placed on probation must continue

to meet conditions for the retention, or future reinstatement, of their licenses. When hiring such an individual the Board Office should be contacted. Therefore, the Board routinely suggests this list be shared with the appropriate supervisory personnel and recruiters in your organization. At the completion of the disciplinary period, the nurse applies for reinstatement. Reinstatement is contingent upon meeting the conditions set forth by the Board.

In accordance with the Arkansas Nurse Practice Act and the Arkansas Administrative Procedure Act, the Arkansas State Board of Nursing took the following action after individual hearings:

DISCIPLINARY: April 9, 1997

- *Cathleen Page Bailey Bradford, LPN Applicant (Plumerville) Allowed to endorse from another jurisdiction, Probation - 2 years, Civil Penalty - \$5000
- *Brenda Maye Hightower Roach, RN 39216 (Pearcy) Suspension - 2 years, Civil Penalty - \$2,500
- *Morgyn Meleia Cloud Rector, LPN 24860 (North Little Rock) Allowed to renew license LICENSE REVOKED
- *Carol Shawn Crowley Jones, RN 24553 (Fort Smith) Allowed to renew license LICENSE REVOKED
- *Lynn Davis Hubbard, RN 43181 (West Memphis) Consent Agreement, Probation - 2 years, Civil Penalty - \$500

DISCIPLINARY: April 10, 1997

- *Ryan Jerome Altenhofen, RN 52030 (Derby, KS) Probation - 3 years, Civil Penalty - \$2,560
- *Teresa Rene Boyd Campbell Keck, LPN 14267 (Batesville) Probation - 3 years, Civil Penalty - \$1,095

DISCIPLINARY: May 7, 1997

- *Lynetta Walker Buckley, LPN 18456 (Little Rock) Suspension - 2 years, Civil Penalty - \$500
- *Iantha Don McCormack Morris, RN 18985 (Jonesboro) Probation - 3 years, Civil Penalty - \$500

OFF PROBATION:

- *Sharon K. Fowler, LPN 17987 (Fort Smith) 3/31/97
- *Paula Peterson Atkinson, RN 30542 (Little Rock) 4/3/97
- *Lea Ann McEachern Rasberry, LPN 15154 (Magnolia) 5/1/97

VOLUNTARY SURRENDER:

- *Sheila Diane McAdams, LPN 21940 (Spearsville, LA) 4/4/97
- *Donna Sue McCullar, LPN 17264 (Arbyrd, MO) 4/23/97
- *Kathryn Joyce John McClendon, LPN 18695 (Hot Springs) 5/1/97

LETTER OF REPRIMAND:

- *Jamie Viola Foster, LPN 20760 (Paragould) 4/2/97
- *Golda Gwyned Walker Hill, RN 35289 (Morrilton) 5/1/97
- *Neldia Lorraine Bland Preston, RN 22622 (Little Rock) 5/1/97

AMS Newsmakers

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. Recipients are as follows: For the month of April - James Edgar Boger, Little Rock; James F. Bradley, Jonesboro; Joseph A. Cook, Conway; Rebecca Rains Floyd, Van Buren; Charles R. Horton, Berryville; Joan Elizabeth Kyle, Little Rock; Steven R. Nokes, Little Rock; Robert Wendell Ross, Van Buren; David Rodney Rozas, Little Rock; Leonus LaFitte Shedd, Paragould; and Donald Lane Toon, Crossett. For the month of May - Kevin Jerome Collins, Sherwood; James Patrick Florez, Little Rock; Edward John Jones, Batesville; David Scott Ureckis, Fayetteville; and Chrysti Lyn Williams, Fayetteville.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:

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Application deadline: October 1, 1997, for January 30, 1998, examination.

Review text available: Appleton and Lange's Review for the Medical Assistant 4th edition, offers a complete review of all areas included in the examination. This text has detailed answers and explanations for over 1600 review questions and also a section on Test Taking Strategies. Many medical employees have successfully challenged the CMA examination using this review text. The price of the text is \$27.95. To order a copy of this book, call Appleton and Lange Publishers toll free at 1-800-423-1359.

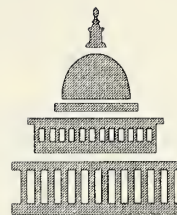
Test application information: The address and toll free number to obtain application materials for certifying are listed in the Test Taking Strategies of the Appleton and Lange Review Text.



Cover Feature

1997

Legislative WRAP-UP



Z. Lynn Zeno, AMS Director of Governmental Affairs

*Medical related
legislation
and the
81st Arkansas
General
Assembly...*

*How will you
and your
patients be
affected?*

The 81st General Assembly was unique in that many of our efforts were spent in successfully amending bills that were onerous to physicians and patients. The AMS once again enjoyed a tremendously successful legislative session highlighted by the passage of Act 1196, the "Arkansas Health Care Consumer Act." The following is a brief summary of medical related legislation that was approved and, just as important, legislative proposals that we effectively killed.

The following issues were proposed, but never passed. The defeat of these proposals was significant to medicine.

*** The Repeal of the Soft Drink Tax.** The soft-drink bottlers, restaurants and the Arkansas Poultry Federation actively campaigned for the repeal of this tax which, with federal matching money, would have created a \$160 million hole in the Medicaid budget. A strong grassroots campaign by health care providers and constituents prohibited this proposal from ever being introduced.

*** The Repeal of Confidentiality Protections for Peer Review Committees.** The AMS in cooperation with the Arkansas Hospital Association prevented the introduction of a bill which would have gutted the peer review/confidentiality legislation we passed two years ago. We succeeded in working out an arrangement to design incident reports containing both the facts of an incident and quality review information. The factual information will be discoverable by plaintiff's attorneys, but the quality assurance information will not be discoverable. The Arkansas Department of Health will promulgate new rules and regulations regarding the incident reports.

*** Financial Disclosure.** The AMS defeated a bill which would have required all medical providers to disclose financial interest in facilities to which patients are referred. This would include hospitals, home health agencies, rehabilitation facilities, physical therapy clinics, outpatient clinics, etc. The bill would have required monthly reports to the Department of Health and resulted in mountains of paper work. The bill was referred to interim committee for study and in-depth discussions will be conducted over the next two years.

The following bills were passed and signed into law by Gov. Huckabee. Most will have a significant impact on physicians and patients.

*** ACT 75 - Registry of Organ Donors.** This Act provides for registry of organ donors and has the following key provisions:

1. The Office of Driver Services of the Department of Finance and Administration shall assist in establishing a registry of organ donors by providing information to an organ procurement agency created, organized and existing under Arkansas law.
2. The Act also provides a means in which any donor may have his or her name deleted from the registry.

* **ACT 186 - Optometry Bill.** This Bill, which was originally so broad as to allow optometrists to practice medicine, was amended by the AMS and the following protections were added:

1. The original bill would have allowed optometrists to use lasers...all references to lasers have been deleted, and there is specific language prohibiting them from doing surgery.
2. The original bill gave optometrists full use of the PDR and all prescription drugs. The bill was amended to allow limited prescriptions and only for treatment of conditions of the eye. Inclusion of the word only prohibits them from treating systemic diseases.
3. The original bill could be interpreted to give the Board of Optometry domain over anyone providing eye care. The amended bill removed MDs/DOs from any authority by the Board of Optometry.
4. The only significant change is limited prescribing authority for oral medications, which is now lawful in 38 other states.

* **ACT 276 - Civil Immunity.** This Act, sponsored by the AMS, has the following provisions:

1. Provides civil immunity to physicians who volunteer services in free or low-cost medical clinics.
2. Previously applied only to retired physicians.

* **ACT 292 - Comprehensive Health Insurance Pool.** This Act, supported by the AMS, has the following provisions:

1. Creates a program to provide coverage to the uninsurable.
2. Fulfills state requirement as a mechanism to comply with the federal Health Insurance Portability and Accountability Act of 1996.
3. Rates may be from 150% to 200% of the rates applicable for standard risk.
4. Funded by insurance premiums and assessments based upon each life and health insurance company's volume of Arkansas business.

* **ACT 373 - Confidentiality of Credentialing.** This Act pertains to the confidentiality of credentialing in-

formation furnished by the State Medical Board. The Act provides that credentialing information received and collected by the State Medical Board shall be confidential. The board may disclose such credentialing information:

1. in disciplinary hearings before the board or in any subsequent trial or appeal of a board action or order or
2. to any physician licensing or disciplinary authorities of other jurisdiction or
3. pursuant to an order of a court of competent jurisdiction.

* **ACT 396 - Hospice Permit Approval.** This Act provides for a permit of approval of a hospice.

1. If a proposed hospice entity has filed written intent to build a hospice facility with the health services agency and the Arkansas Department of Health, the proposed entity may have 36 months to complete the project and be licensed.
2. This Act is a result of the proposed hospice facility in Little Rock. A stipulation was placed in the Act that the proposed beds of a hospice facility can not be converted to any other type license.

* **ACT 407 - ARKids First Program.** This Act, supported by the AMS, has the following provisions:

1. Provides health care for children not presently covered by Medicaid or other private insurance plans.
2. Provides coverage and payment for approximately 90,000 children through the Medicaid program.

* **ACT 453 - Helmet Repeal.**

1. Removes the requirement for wearing headgear for persons 21 years of age or older.
2. This Bill passed under the guise of personal freedom and following an intense grassroots effort by the motorcyclists.

* **ACT 704 - Sales Tax Exemption.** This Act, sponsored by the AMS, has the following provisions:

1. Provides sales tax exemption for all prescription drugs administered in physician offices.
2. Previously, the sales tax exemption applied only to oncologists.

* **ACT 744 - Physical Therapists.**

1. Physical therapists won their fight for direct access.
2. The Bill was amended to exclude language that allowed physical therapists certain diagnosis authority.

3. Most insurance plans will only pay if there is a physician referral.

*** ACT 779 - Non-smokers' Protection on Public School Property.** This Act, supported by the AMS, has the following provisions:

1. Prohibits tobacco use on school property, including buses.
2. School board may designate areas for teachers, other school personnel and visiting adults.

*** ACT 816 - Arkansas Acupuncture Practices Act**

1. Establishes regulation where none previously existed.
2. Requires extensive educational requirements.
3. Excludes physicians who practice acupuncture.

*** ACT 828/ACT 434 - The Breast Cancer Act of 1997.** This Act, supported by the AMS, has the following provisions:

1. Appropriates \$2,400,000 annually for breast cancer detection, education, treatment and research.
2. Inadequate funding by the state would result in implementation of a 2% tax on tobacco products for funding.

*** ACT 870 - Childhood Immunization.** This Act stipulates that no child care facility shall continue to admit a child who has not been appropriately immunized from diphtheria, tetanus, red measles, rubella and any other disease as designated by the State Department of Health, within 15 program days after the child's original admission.

1. The immunization shall be evidenced by a certificate of a licensed physician or a public health department acknowledging the immunization.
2. However, the provisions pertaining to immunization shall not apply if the parents or legal guardian of the child object on the grounds that such immunization conflicts with the religious tenets and practice of a recognized church or religious denomination.

*** ACT 871 - Childhood Immunization.** This Act states that infants or children who have not been appropriately immunized for all of the diseases outlined in Act 870 shall not be admitted to a public or private school or child care facility.

*** ACT 963 - HIV Testing.** This Act, sponsored by the AMS, has the following provisions:

1. Adds testing for HIV and Hepatitis B to other tests currently being required of pregnant women.
2. If the patient refuses, the fact shall be noted

in the patient's record and the physician is absolved of liability.

*** ACT 984 - This is the Partial-Birth Abortion Ban Act of 1997.**

*** ACT 990 - Criminal Record Checks for Nursing Home Personnel.** This Act provides for criminal background checks on persons caring for the elderly or individuals with disabilities. Physicians were included in the initial draft of the Bill. AMS was successful in removing physicians from the Bill following lengthy negotiations.

1. The Act provides for a mandatory criminal record check on the state level and national level if the qualified entity (long-term care facility, home health service or hospice service) intends to make an offer of employment to the applicant.
2. The qualified entity shall, within five days of such decision, forward the criminal history check form to the bureau for background check purposes.

*** ACT 1020 - Mental Health Parity.** Supported by the AMS:

1. The Act is narrow in scope.
2. This is a step toward medical coverage for diagnosis and treatment of mental illness and developmental disorders.

*** ACT 1065 - Certified Registered Nurse Anesthetists.**

1. This was an attempt by the certified registered nurse anesthetists for independent practice.
2. Bill was amended by the AMS to continue the requirement for "physician supervision."

*** ACT 1196 - Arkansas Healthcare Consumer Act.** This Act, sponsored by the AMS, has the following key provisions:

1. Requires insurers to provide minimum lengths of stay for maternity benefits.
2. Requires reconstructive surgery plus minimum lengths of stay for mastectomies.
3. Requires carriers to put in writing their reasons for revoking or denying membership to their provider panels and allow time for the provider to respond.
4. Requires that plans obtain input from its participating providers in developing medical policy, UR criteria, quality standards and other management procedures.
5. Requires that upon request, insurance carriers or HMOs disclose important information to potential customers, current customers and

to providers. Information such as: a description of prior authorization; precertification and referral requirements; existence of drug formularies; and disclosure of provider selection and deselection criteria.

6. Provides direct access to obstetricians/gynecologists.
7. Prohibits "gag clauses" in managed care contracts.
8. Provides a mechanism to continue treatment under a nonparticipating provider during a current episode of care for an acute condition.
9. Allows the provider to prescribe a nonformulary drug when the listed brand has proven ineffective in treating the condition or an adverse reaction is likely.
10. Requires every carrier to have a grievance procedure and provide a written response regarding denied treatments.

* **ACT 1204 - Pharmacy Bill.** This Bill redefined the practice of pharmacy. It was amended by the AMS in the following areas:

1. There will be no blanket protocol by corporate medical directors allowing chain pharmacies or nursing homes "carte blanche" authority to inject or administer drugs.
2. Requires individual prescriptions that are physician - patient - pharmacist specific.
3. No medications may be administered to persons under the age of 18.
4. There is a very limited, defined list of allow-

able drugs that a pharmacist may administer with a physician's order.

5. **NOTHING CAN BE DONE UNLESS YOU, THE PHYSICIAN, GIVE THE ORDER.**

* **ACT 1249 - Diabetes Management.** This Act, supported by the AMS, has the following provision:

1. Requires insurance companies to cover diabetes self-management training and certain equipment, supplies and services for treatment of diabetes.

* **ACT 1263 - Sales Tax.** This Act eliminates the sales tax on the service of providing a credit report and the service of collecting a debt or account receivable.

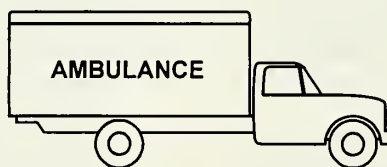
* **ACT 1317 - Criminal Record Checks for Allied Health Professionals.** This Act provides for criminal background checks for social workers, psychologists and psychological examiners.

* **ACT 1353 - Out-of-State Physicians Licensure.** Sponsored by the AMS, this Act has the following key provisions:

1. Requires out-of-state physicians who, through the use of any medium, perform an act that is part of a patient service initiated in this state, to be licensed by the Arkansas State Medical Board.
2. This includes the interpretation of x-ray examination or pathological material.

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1997 Doctors of the Day

THANK YOU!

The AMS Department of Governmental Affairs would like to thank all of the volunteer physicians who became actively involved in the legislative process by serving as "Doctor of the Day" at the State Capitol.

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Doctors of the Day speak out about serving

"It aroused my interest for participation in the political process. Truly a day well spent. Can I apply for doctor of the year?" - *Mark Miller, MD, Russellville*

"Someone once said "people who love law and sausage shouldn't watch either one being made." I enjoyed my day as "Doctor of the Day" and want to continue to do this yearly. Mostly, I want to do this again because like Pogo I stay around here just to see what's going to happen next." - *A. Bruce Junkin, MD, Newport*

"A day well spent. A brief glimpse of "inside politics" is worth more than the cost of a day of work. Besides, lunch at Doe's is always a treat. Everyone should do this once and you'll come back often." - *Sam Welch, MD, Little Rock*

"I was there for the last day of the legislative session. It was fantastic! It was like witnessing the bottom of the ninth inning with two outs and the bases loaded. Zeno hits grand slam home runs for us all the time. Every doctor ought to witness and experience it." - *Dan Davidson, MD, Searcy*

"Two things come to mind regarding the "Doctor of the Day" program. Generally, I hear comments along the lines of "How do I know how to vote (on a medical issue) if I do not hear from you. Please call me." Secondly, it is helpful to have been around, been seen, and met a few senators and representatives so they know who you are when you do call or write regarding a particular issue. Like it or not, we must be more involved with the decision making process on the state and federal levels." - *John E. Hearnberger, MD, Little Rock*

"An interesting look into the way politicians and lobbyists affect our future and that of our patients. I learned a lot." - *Clark Fincher, MD, Searcy*

"Probably the highlight of being "Doctor of the Day" was not this past session but the session before when I was called on to see Dr. Vic Snyder. I attended him while he was having atrial fibrillation and actually went to the ER with him. I was gratified that he converted and did well. Reflecting on this, since he is now one of our representatives to Congress, I am glad that I could be present in attendance to actually help a friend and a colleague in some small way. Another observation for me is that over the years each time I am the "Doctor of the Day," I find I understand more of the legislative process and importance of our involvement in that process. I think it has been an invaluable experience for me and would be for other physicians, and I am grateful for the opportunity to have been able to participate." - *Joe H. Stallings Jr., MD, Jonesboro*

"It was a great experience. Physicians need to become comfortable working with this group that has so much power over our profession." - *Mark Dixon, MD, El Dorado*

"I thought it was a wonderful experience. I had a very good reception as a female physician from the senators and representatives. I look forward to being able to be "Doctor of the Day" again." - *Kim Garner, MD, Pine Bluff*

"It was an enlightening experience. That afternoon I realized my future in medicine is both a commitment to the health of my patients as well as a responsibility to defend them against legislation that can jeopardize quality of care." - *Jeff Marotte, medical student*

"The "Doctor of the Day" program gives me an opportunity to interact with the members of the legislature and the Arkansas Medical Society. The contacts that I have developed have proved beneficial when dealing with state government." - *Barry V. Thompson, MD, Crossett*

"In addition to the medical service you provide for the legislators, who sincerely appreciate it, you gain creditability with your legislator and send a message that you are a ready participant in the political process." - *Charles H. Rodgers, MD, Little Rock*

"Physicians should be more involved in the legislative process so that they will have a voice and influence in health care in the future" - *Don G. Howard, MD, Fordyce*

"If you happen to be there on a day when a senator has chest pain, as I was, you feel like it was important to be there." - *G. Randy Guntharp, DO, Pochontas*

"Each time I have served as "Doctor of the Day" I have gained valuable new insights into the legislative process and the importance of pro-active physician involvement." - *Joe V. Jones, MD, Blytheville*

"Our contact with the legislators is very important. The "Doctor of the Day" program is a good way to enhance and to show that we (doctors) are interested in legislative action. They also appreciate the service we give. We do need to stay in touch." - *Wayne Workman, MD, Little Rock*

"I have found that the legislators will listen. We need to be at the Capitol to express our needs, views and problems." - *Dennis Berner, MD, Russellville*

"I learned more about the legislative process, especially with regard to medical issues. It was a fun and informative day." - *Jim M. Ingram, MD, Little Rock*

"I enjoyed the event and seeing how the state works. The direct contact with the Society was also valuable. Thank you for letting me be of service and ask me again." - *Stevan Van Ore, MD, Harrison*

Day at the Capitol

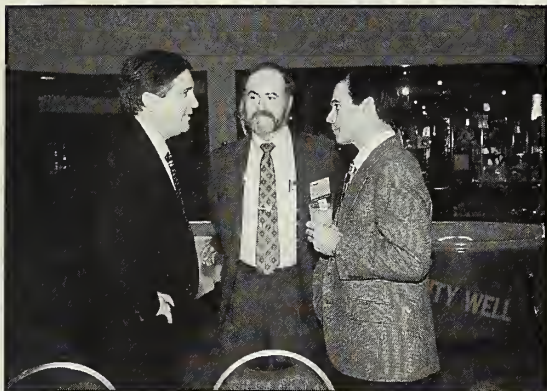
On Wednesday, February 5, 1997, physicians, legislators and guests mixed and mingled during the bi-annual "Day at the Capitol" reception at the Aerospace Education Center.



From left: Dr. Kathleen Thompson-Hall, Rep. Ray Stalnaker, Mrs. Ann Stalnaker, Rep. Susan Dore of Maine, Lynn Zeno, AMS Dir. of Governmental Affairs, and Rep. Sam Angel, II.



From left: Rep. Pat Pappas, Mrs. Donna Crenshaw and Dr. John Crenshaw.



From left: Rep. Scott Ferguson, M.D., Dr. Hoy Speer, Jr., and Dr. Bill Dedman.



From left: Rep. Randy Laverty, Dr. Jim Crider, Rep. Billy Joe Purdom, Dr. Sue Chambers, Dr. Carlton Chambers and Rep. Jim Milum.



From left: Phil Matthews, Arkansas Hospital Association, Sen. Jean Edwards and David Wroten, AMS Assistant Executive Vice President.



From left: Dr. Bill Jones and Rep. Lloyd George.

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Neonatal Circumcision:

Anatomic Contraindications

John F. Redman, M.D., F.A.A.P.

Joseph M. Elser, M.D., F.A.A.P.

Abstract:

Complications from neonatal circumcision may result from inexperience or poor technique, but may also result from poor patient selection based on penile anatomy. The anatomic contraindications to neonatal circumcision are therefore presented in an effort to prevent complications.

Neonatal Circumcision: Anatomic Contraindications

Despite the statement by the *ad hoc* task force on circumcision of the American Academy of Pediatrics that there is no absolute medical indication for circumcision in the newborn period, there was only a minimal decrease in the incidence of neonatal circumcisions in the United States during the 14 years before the opinion was modified.^{1,2} With the modification in 1989 that there may be medical benefits, the incidence is again increasing.^{3,4} Neonatal circumcisions are performed by a wide range of practitioners, which most commonly include obstetricians, pediatricians and family practitioners. Most neonatal circumcisions are accomplished with minimal morbidity with either a plastibell or Gomco clamp. However, we are seeing an inordinate number of children with untoward post-circumcision sequelae which could have been prevented with proper patient selection based on the penile and scrotal anatomy.⁵ The anatomic contraindications to neonatal circumcision are therefore presented in an effort to prevent complications.

Circumcision in the newborn should be performed only if the infant is completely healthy and has absolutely no penile or scrotal anomalies. The most common complications are the excision of too much or too little skin. Complications resulting from neonatal circumcision may occur in infants with a normal penis

and scrotum if an inappropriate instrument or poor technique is employed. These complications are often attributed to inexperience.⁵ It follows that any practitioner who does newborn circumcision should have a knowledge of the normal anatomy of the infant penis and scrotum. A complication is almost always the rule if the practitioner proceeds with a circumcision despite the presence of a penile anomaly. Anatomic contraindications include: a short phallus, small phallus, any degree of hypospadias, a hooded prepuce, a dorsel cutaneous hump, penile curvature, penile torsion, penoscrotal fusion, or a large hydrocele or inguinal hernia extending into the scrotum.

Anatomic Contraindications

Short Phallus

A specific definition of shortness is of little practical help. It may simply be stated that if a distinct penile shaft is not seen to be emerging from the body wall, circumcision should not be done. (Fig. 1) This does not necessarily mean that the penis itself is abnormally short, but rather may appear so because of considerable pubic fat which engulfs the shaft.



Figure 1: Short penile shaft with element of penoscrotal fusion which precludes adequate neonatal circumcision.

* Drs. Redman and Elser, Departments of Urology and Pediatrics, Arkansas Children's Hospital and University of Arkansas College of Medicine.

Small Phallus

A small phallus, that is, a penis in which the smallest bell device is obviously too large for the glans, should not be circumcised.

Hypospadias

By definition, hypospadias is an anomaly in which the urethral meatus is located proximal to the tip of the glans. (Fig. 2) If, on the initial examination, hy-



Figure 2: Typical appearance of penis with hypospadiac meatus located at the corona.

pospadias is noted, circumcision is deferred. The condition may not be noted, however, until either the preputial opening has been spread or the dorsal slit has been accomplished since hypospadias may exist in the presence of a complete prepuce. If hypospadias is thus uncovered, the procedure should be terminated immediately. If bleeding is difficult to control following the dorsal slit, the circumcision may be completed. However, only the tissue necessary to control bleeding should be excised.

Hooded Prepuce

The presence of a hooded prepuce should alert the examiner to the possible presence of a hypospadiac meatus. At times, the meatus may be stenotic and therefore easily missed. A deep cleft or crypt in the distal urethral plate may give the appearance of a normally placed urethral meatus on cursory examination. Not infrequently, a hooded prepuce will exist in the presence of a meatus which is normal in appearance and position. (Fig. 3) This condition is a forme fruste of hypospadias. In these boys, the distal corpus spongiosum is frequently divergent just as in overt hypospadias.

The bare urethra may lie therefore directly underneath

the skin to which it may be frankly adherent and thus subject to injury.

Dorsal Penile Cutaneous Hump

A dorsal penile cutaneous hump is reminiscent of a hooded prepuce but is located more proximal in relation to the corona. Usually the remainder of the prepuce is normal. This condition may also represent a forme fruste of hypospadias and may be associated with an often initially unrecognized ventral penile curvature.

Penile Curvature

Penile curvature can only be recognized if the infant has an erection. Fortunately, however, the newborn frequently will be noted to have an erection just before voiding or during the course of the genital exam. A partial erection may be enhanced by compression of the corpora at the base of the penis. Curvature of the penis, thus noted, may be ventral, lateral, or even dorsal.

Penile Torsion

Torsion of the penis is usually not recognized until the meatus is visualized. With this condition, it will be noted that the glans is rotated so that the normally ventrally placed meatus is located at other than the six o'clock position. Although penile torsion is relatively common, boys with greater than a 40° torsion should not undergo a newborn circumcision.

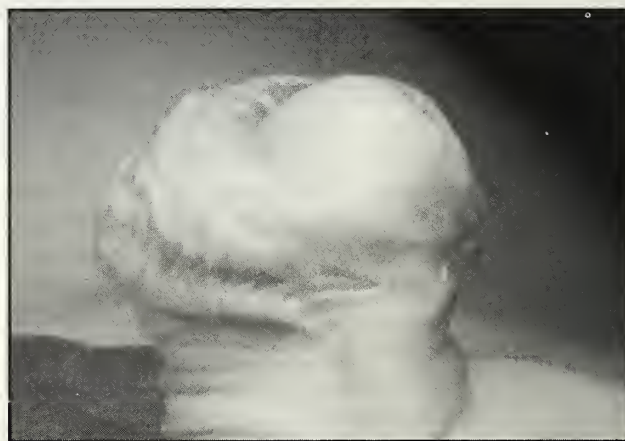


Figure 3: Penis with hooded prepuce, but a normally placed meatus.

Penoscrotal Fusion

Penoscrotal fusion or webbed penis is an anomaly in which the penile skin and scrotum are literally conjoined. (Fig. 4) Since the skin needed to eventually cover the shaft can only be obtained from the prepuce, a circumcision in these infants results in a deficiency of



Figure 4: Penoscrotal fusion.

thin hairless skin that is difficult to remedy short of a skin graft.

Large Hydrocele or Inguinal Hernia Extending Into Scrotum

Moderate or large hydroceles are generally watched until the child is well past one year of age since in time most will have resolved spontaneously. At birth, however, hydroceles may cause marked engulfing of the penis which makes it difficult to ascertain the appropriate amount of skin to be excised with circumcision. Therefore, circumcision should be deferred until the hydrocele resolves or is corrected surgically. In like manner a hernia also distorts the penile skin, and similarly the circumcision should be deferred and performed at the time of inguinal hernia repair.

Discussion

Each of the described penile anomalies can be corrected surgically. The surgery is generally performed on an outpatient basis when the boy is six months of age. If the neonate has another anomaly which will require surgery, such as an inguinal hernia or cleft lip, the circumcision can obviously be deferred and performed in the operating room. The surgical correction of penile anomalies often must be individualized and should be performed only by surgeons with the ap-

propriate experience and skills in the management of childhood penile anomalies. If a circumcision is inadvertently performed in the presence of a penile anomaly, oftentimes subsequent repair of the anomaly can be performed with a satisfactory outcome. However, the presence of scarring and a paucity of smooth, hairless skin makes the task difficult.

Conclusion

All physicians who do neonatal circumcisions should give careful attention to the examination of the infant's penis to be sure that the penis is completely normal. If the penis and/or its skin is abnormal or distorted, the procedure should be avoided and appropriate consultation should be obtained.

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Total Facility Evacuation at Helena Regional Medical Center

P. Vasudevan, M.D.*

Karen Wade**

Editor's Note: Every hospital has an emergency plan - or should. Administrators and crisis management experts meet to talk about "what would we do if..." and worst case scenarios in an effort to come up with a plan of action should the need arise. Well, the need did arise at Helena Regional Medical Center on May 8, 1997, and they were ready. In fact, the hospital had just around a month earlier gone through a practice evacuation drill. In summation below, Dr. P. Vasudevan describes the responsible and successful actions taken when a chemical explosion occurred at BPS Chemical Plant about a mile and a half from the hospital.

Evacuation

On May 8, 1997, at 1:25 p.m. an unusual smell was noticed by some employees at Helena Regional Medical Center. The Director of Nursing, Beverly Winney, contacted the Sheriff's Department and was told to evacuate all ambulatory patients. The Director of Nursing then attempted to call the Office of Emergency Services (OES) to determine what the situation was. The Nursing Secretary, Jennifer Summerhill, talked to an OES representative who stated that OES was in the process of verifying the situation. The OES called the Director of Nursing and informed her that the hospital should be evacuated.

At 1:40 p.m., a Code WHITE, Total Facility Evacuation, was paged overhead. The plan was activated. A command center was established in the Nursing Supervisor's office. Betsy Arnold, the hospital's Safety Officer, called Dr. Steve Jones at Phillips County Community College and requested to utilize the college as an evacuation site. It was decided that all Class I, II and III patients would be taken to Phillips County Community College. Contact was made with the Clarksdale hospital and Forrest City hospital to find

out how many patients they could accept at their facilities. All Class IV patients would be transported to the hospital in Clarksdale, Mississippi, and the Baptist Hospital in Forrest City, Arkansas.

The manpower pool was activated and the staff was assigned to the Nursing Units to assist with the evacuation of patients. The Helena Regional Medical Center transportation service, vehicles from Mid Delta Transit and school buses were obtained to assist with the transfer of patients that could go via this route. Pafford Ambulance was notified to transfer patients that needed to go by ambulance. In addition, a funeral home sent a hearse which was used for transfer of some bedfast patients who could not ride in a car.

The Emergency Room (ER) received some patients from the industrial site. A water hose was used outside the ER for decontamination of victims from the site. At 2:30 p.m., all patients except for the ventilator patients had been evacuated from the building. At 3:10 p.m., all inpatients left the building. At 3:30 p.m., the hospital was mandated to immediately evacuate the building completely. The last employee left the building at 4:30 p.m.

There were a total of 44 patients evacuated from the building. Seventeen were immediately transported to Phillips County Community College. Three were transported to Northwest Regional Medical Center in Clarksdale, Mississippi. Four were transported to Baptist Hospital in Forrest City, Arkansas. Fourteen patients were discharged home. Four were transferred to the hospital alternate site at Crestpark Skilled in Helena, Arkansas, and two patients were sent to Crestpark Intermediate facility also in Helena. One OB labor patient at the Birthing Unit was transferred to Clarksdale. Two patients were admitted immediately prior to the evacuation; one was discharged home and one was transferred to Crestpark.

All outpatient surgery patients were discharged home by 2 p.m. One prostate surgery patient from that morning was discharged and transferred, by van,

* P. Vasudevan, M.D, a urologist and AMS Councilor, is Chairman of Helena Regional Medical Center's Professional Standards Review Committee and Quality Assurance Committee.

** Karen Wade is Director of Quality Assurance at Helena Regional Medical Center.

to his home with instructions to be followed by the doctor and Home Health Team. One prostate surgery patient, who was undergoing surgery at the time, was transferred to the Recovery Room as soon as the surgery was completed and then immediately transferred to Crestpark Nursing Home by ambulance and accompanied by the anesthesiologist.

Phillips County Community College - The Evacuation Site

Celia St. Columbia, a speech therapist and hospital manager assigned to coordinate with the college, went to Phillips County Community College with the rehabilitation patients. She made plans with Rhonda St. Columbia, of Phillips County Community College Public Relations Department, concerning the needs of the hospital and the patients who were arriving. The college's staff assisted with additional maintenance personnel and the patients and supplies. Patients were placed in the college's cafeteria with tables used as beds. A command center was set up in the Red Room at the college. All patients were accounted for by Helena Regional Medical Center personnel at the transfer site. Personal cellular phones were used for communication. Two phones and one cell phone, from the hospital, were used at the information desk. The following departments were established at the college: Information/Registration, Emergency/Triage, Obstetrics/Newborn, Lab, Respiratory Therapy, Dietary and Pharmacy.

Continued Care of the Inpatients and Rehab Patients

Inpatients and rehab patients were transferred to Crestpark Skilled Nursing Home where a "wing" was assigned for hospital use. Helena Regional Medical Center nursing staff was assigned to take care of these patients.

Communication with Outside Agencies

The HAZ MAT team from West Memphis communicated with the hospital concerning evacuation. The Arkansas Department of Health communicated with the hospital concerning returning to the hospital and clean-up procedures. The Environmental Protection Agency and Centers for Disease Control also worked with the hospital concerning safety and clean-up issues. On Saturday at approximately noon, the State Health Department informed the hospital that the air levels, tested at the hospital site, were negative and that "ceiling to floor" cleaning with QUAT 26 could begin. Cleaning was scheduled to begin at 8 a.m. on May 11, 1997. All linens and curtains needed to be laundered with normal procedures.

The State Department of Health and its Director, Dr. Sandra Nichols, were very helpful. They worked

day and night to help re-open the hospital as soon as possible. Dr. Steve Jones, Chancellor at Phillips County Community College, and its employees; and Rita Fincher, Executive Director at Crestpark and its employees, helped coordinate the activities.

The employees of Helena Regional Medical Center did an outstanding job. Special mention should be made of Karen Wade, Director of Quality Assurance; Beverly Winney, Director of Nursing; Administrative Staff; Betsy Arnold, Safety Director; the entire Maintenance Team and all department heads and nursing personnel.

The following is a letter written on May 28, 1997, by Sandra Nichols, M.D., Director of the Arkansas Department of Health, to Jim Teeter, President of the Arkansas Hospital Association. The letter was published in the June 10, 1997, issue of *The Notebook*, a weekly publication of the Arkansas Hospital Association.

Dear Mr. Teeter: Thursday, May 8, began as an ordinary day at the Helena Regional Medical Center. However, by the middle of that afternoon, it became evident that this day was going to be anything but ordinary. This was the day that the BPS Chemical plant started burning and subsequently exploded.

When notified of the occurrence, the administrator of Helena Regional Medical Center notified officials at the Arkansas Department of Health of their intention to evacuate. The evacuation plan was established previously and included transferring patients to other hospitals in the area and Phillips County Community College. Health Department staff approved the transfer of patients, the establishment of facilities at the community college and assisted in mobilizing ambulances to transport patients. By Thursday evening, Medical Center emergency room, laboratory and pharmacy facilities were relocated to Phillips County Community College.

By Friday afternoon, air monitoring tests at the medical center revealed that levels were safe for reentry. The hospital could not be reoccupied until all surfaces had been cleaned, all supplies restocked, and all air filters had been changed. Staff worked throughout the weekend to accomplish this monumental task. On the evening of Tuesday, May 13, the Helena Regional Medical Center was reopened for business.

The planning that occurred at the Helena Regional Medical Center prepared the staff for a swift and efficient response when the events of May 8th occurred. The cooperative nature of Medical Center staff after the evacuation and subsequent reentry was also swift and efficient. Without the presence of these factors, the health of the patients and staff would have been compromised. The administration and staff are to be commended for their exemplary actions. - Sincerely, Sandra B. Nichols, M.D.



CLINICOPATHOLOGICAL IMAGES

Miltiadis Leon, M.D.*
Nick J. Paslidis, M.D., Ph.D.**
Larry Kramer, M.D.***
Ajit Adyanthaya, M.D.****



Figure 1A: Coronal view through the ascending aorta (AA) and proximal arch, showing no evidence of dissection.

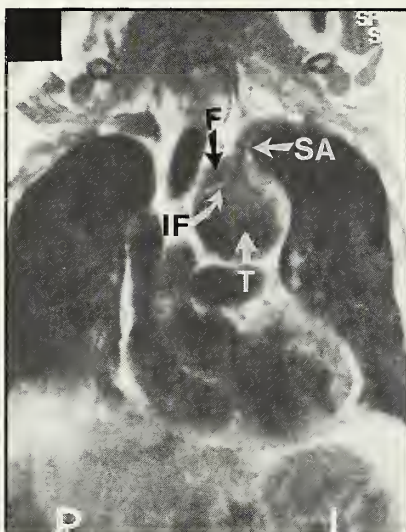


Figure 1B: Coronal view one section posteriorly to the previous view, at the level of the subclavian artery (SA), showing the true lumen (T) and the false lumen (F), separated by the intimal flap (IF).

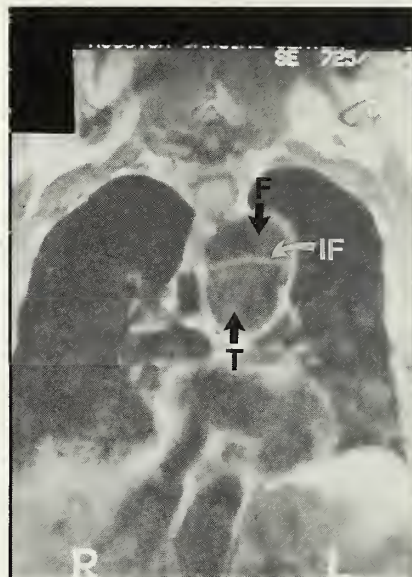


Figure 1C: Coronal view through the proximal descending aorta, showing the true lumen (T), the false lumen (F) and the intimal flap (IF).

Retrograde Extension of a Chronic Type III Aortic Dissection

Medical therapy has been considered the treatment of choice for acute uncomplicated distal aortic dissections (type III DeBakey classification) and has been associated with overall good long term prognosis, due to higher frequency of healing comparing with proximal dissections. However, some authorities have recommended early operative management to prevent fatal rupture during the acute phase or even after healing, which was found to occur in significant portion in autopsy series. We report such a fatal outcome of a 67-year-old man, whom we have followed for fifteen years with known aortic dissection type III, showing by an MRI scan (T1- weighted spin ECHO) contiguous images (Fig. 1A, 1B, 1C). He presented with sudden onset of chest pain and dyspnea and was found to be hypotensive with distal heart sounds. The diagnosis of acute retrograde extension of the dissection into the aortic arch and ascending aorta with rupture into the pericardial sac, causing cardiac tamponade was entertained and confirmed during emergency operation. The pericardial cavity was evacuated, the ascending aorta, transverse arch and portion of the descending aorta were replaced with a graft and the brachiocephalic vessels were reimplanted. However, large amount of bleeding was noted from every anastomosis site at the end of the procedure which could not be controlled and the patient expired on the operating room table.

Authors

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- *** Larry Kramer, M.D., Assistant Professor of Radiology at the University of Texas, Houston Health Science Center.
- **** Ajit Adyanthaya, M.D., Clinical Professor of Medicine at the University of Texas, Houston.

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Tracy Dietz, M.D.*
Joe K. Bissett, M.D.*
J. David Talley, M.D.*

The Effects of Hypokalemia on the Heart

It is well-recognized that potassium homeostasis plays an important role in the maintenance of normal cardiac function. The relationship between hypokalemia and clinical electrocardiographic and electrophysiologic changes and cardiac arrhythmias has been extensively investigated. This article will present a patient who presented with hypokalemia, review the electrophysiologic basis for the relationship between hypokalemia and cardiac arrhythmias, and identify some of the specific arrhythmias that may be seen with hypokalemia.

Patient Report

A 42-year-old male with a history of untreated systemic arterial hypertension and alcohol use (see Complete Problem List, Table 1) presented to the Emergency Department with a 1-2 month history of short-

Table 1
Complete Problem List

1. Systemic arterial hypertension
2. Substance use
 A. Ethanol
3. Hypokalemia →
4. Hypomagnesemia →

ness of air especially with exertion, lower extremity swelling, and palpitations. He denied any nausea, vomiting or diarrhea. The temperature was 100.9° F, pulse rate was 119 beats/minute, and the blood pressure was 199/108 mmHg. There was no jugular venous distention. The lungs were clear, and his cardiovascular exam was normal without murmurs or gallops. The abdomen was distended but non-tender with normal bowel sounds. The sodium was 137 mEq/liter, potassium 1.7 mEq/liter, chloride 87 mEq/liter, bicarbonate

39 mEq/liter, BUN 3 mEq/liter, and magnesium of 0.7 mEq/liter. The electrocardiogram (Figure 1) showed sinus tachycardia, global ST segment depression, a prolonged QT interval, and a prominent U wave. The patient was admitted to the Intensive Care Unit for cardiac monitoring. He required more than 640 mEq of KCL and 10 grams of MgSO₄ to correct the electrolyte disturbances. The etiology of the profound hypokalemia and hypomagnesemia was thought to be secondary to ethanol use. There was no evidence of a hyperaldosteronism.

Potassium And The Action Potential

To understand the effect of changes in serum potassium concentration on the electrophysiologic properties of the heart, it is necessary to review the phases of a typical action potential of the heart (Figure 2) and to review the role of potassium currents in the generation of the action potential. The resting transmembrane potential of cardiac cells is primarily determined by the ratio of intracellular and extracellular potassium concentrations; in the resting state of ventricular muscle cells it is approximately -90mV. During *Phase 0* of the action potential there is rapid movement of sodium ions into the cell through voltage gated sodium channels. *Phase 1* represents rapid repolarization which occurs in part to transient outward potassium currents and movement of calcium into the cell. *Phase 2* is characterized predominately by balanced membrane conductance of inward calcium and outward potassium currents. The membrane voltage remains near zero for variable periods. In *Phase 3*, cell repolarization proceeds due to net outward movement of potassium currents. The major outward repolarizing current (I_k) has both rapid (I_{kr}) and slow (I_{ks}) components. During *Phase 4*, the membrane potential of normal atrial and ventricular muscle cells remains relatively stable

* Drs. Dietz, Bissett and Talley are with the Division of Cardiology at UAMS.

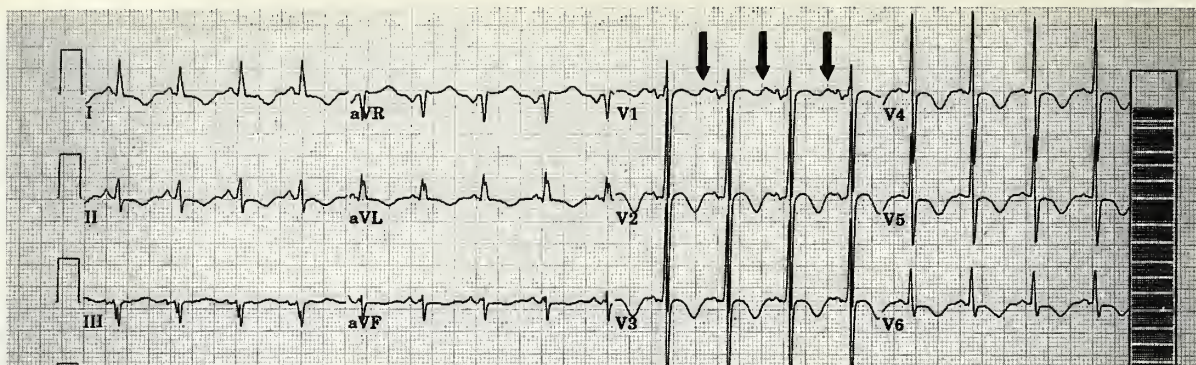


Figure 1: Twelve-lead electrocardiogram reflecting changes consistent with profound hypokalemia. The corrected QT interval is prolonged (0.53 sec; upper limit of normal 0.39 sec. for males and 0.44 sec. for females), and the U-wave is obvious (arrow). [The QT interval is corrected for the heart rate: $QT = \sqrt{RR}$; Bazett's formula.]

at the resting membrane potential established by multiple repolarizing currents including I_{K1} which is active in the last phase of the action potential. Other fibers such as those in the sinus node and His-Purkinje System show spontaneous diastolic depolarization perhaps related to a pacemaker current or hyperpolarization-activated inward current (I_f).

Hypokalemia produces significant alterations of the action potential. The resting membrane potential becomes more negative or hyperpolarized.^{1,2,3} Phase 4 depolarization may be increased in Purkinje fibers producing premature depolarization. Reduced extracellular potassium may prolong the duration of Phases 2 and 3 of Purkinje fibers probably by decreasing the conductance of the delayed K current I_K . In some animal models this effect was absent when experiments were conducted in a sodium free solution. The major result of a delay in repolarization induced by hypokalemia is prolongation of the action potential. These changes are reflected in an increased duration of the QT interval and perhaps by the development of U waves on the surface electrocardiogram. Prolonged repolarization increases the period of time at which membrane potential remains near threshold levels. This change may result in early afterdepolarization and clinical arrhythmias such as polymorphic ventricular tachycardia or torsades de pointes.⁴ Early afterdepolarizations have been produced in isolated canine Purkinje fibers under conditions of reduced extracellular potassium and may represent an important mechanism of clinical arrhythmias. The change in action potential duration may be less marked in ventricular muscle, thereby increasing the difference of electrical properties between Purkinje and muscle fibers.

The genesis of the U wave and its electrophysiological basis have not been firmly established. It has been proposed that some ventricular myocardial cells located in the sub-epicardial or mid-myocardial layers (M cells) may have electrophysiologic properties similar to Purkinje fibers with the exception of Phase IV depolarization. The longer action potential duration

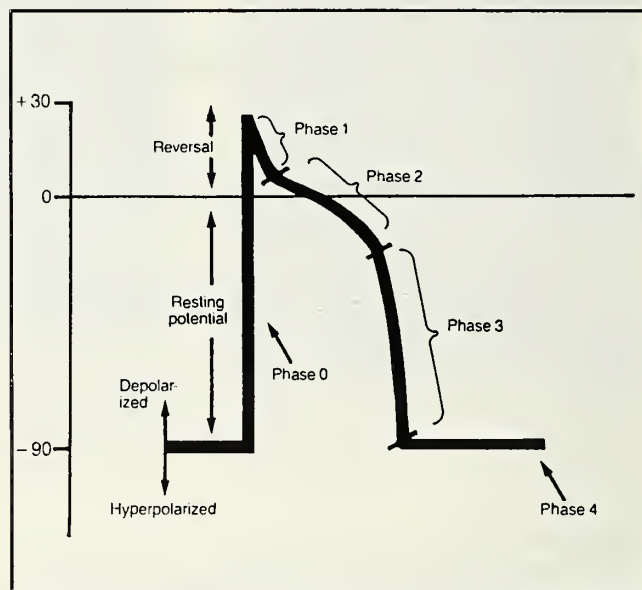


Figure 2: A diagrammatic representation of a typical action potential of a ventricular myocardial cell. (From: Helfant RH. Hypokalemia and arrhythmias. *Am J Med* 1986;80:13-22.)

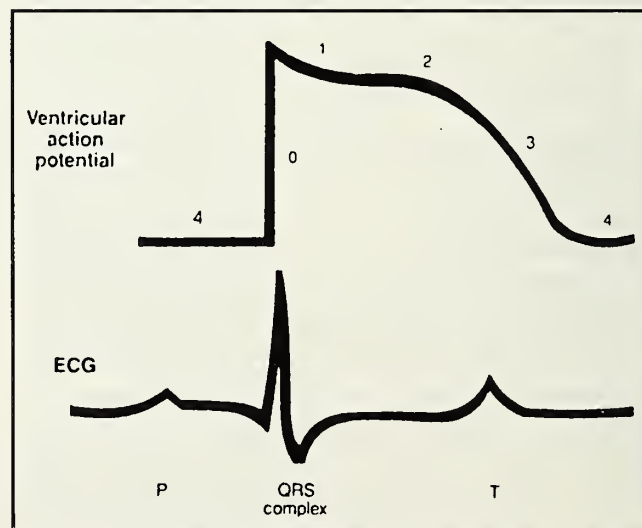


Figure 3: The relationship between the action potential of a ventricular myocardial cell and a superimposed electrocardiogram. (From: Helfant RH. Hypokalemia and arrhythmias. *Am J Med* 1986;80: 13-22.)

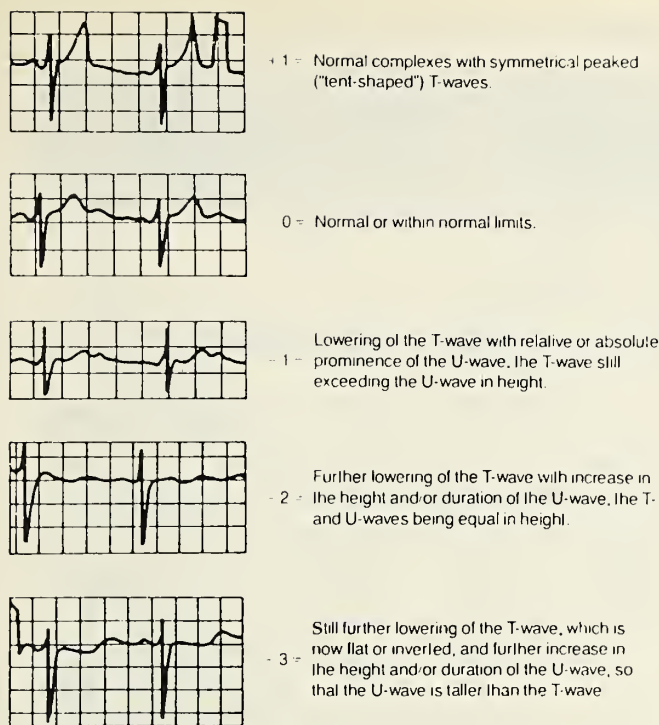


Figure 4: The characteristic changes seen in the electrocardiogram with potassium depletion. (From: Helfant RH. Hypokalemia and arrhythmias. *Am J Med* 1986;80: 13-22.)

of these cells may contribute to the generation of U waves and triggered activity.

Potassium And The Electrocardiogram

The effects of potassium on the electrophysiologic properties of cardiac cells are usually manifest by changes of the surface electrocardiogram. Figure 3 demonstrates the relationship between the action potential of a ventricular myocardial cell and a superimposed electrocardiogram. The action potential duration and time for repolarization determine the QT interval, whereas the QRS duration (the time for myocardial depolarization) is related to the upstroke velocity of Phase 0 or the velocity of impulse conduction. In the presence of hypokalemia, there is lengthening of the QT interval, flattening of the T wave, and the development of a U wave indicating prolongation of repolarization. Figure 4 depicts the characteristic changes seen in the electrocardiogram with potassium depletion. It should be noted that no absolute relationship has been demonstrated between specific serum potassium levels and the electrocardiogram.

Relationship Between Hypokalemia And Arrhythmias

A number of studies have demonstrated an association between hypokalemia and premature ventricular contractions.^{5,6} Studies have also demonstrated a relationship between ventricular tachycardia and ven-

tricular fibrillation in patients with hypokalemia, especially in patients with acute myocardial infarction.^{7,8} Hypokalemia has also been associated with AV conduction disturbances and supraventricular rhythms.⁹

Conclusion

Low serum potassium levels can have dramatic effects on the electrophysiologic properties of the heart with subsequent electrocardiographic changes and a propensity to develop cardiac arrhythmias. It is important, therefore, to prevent and correct hypokalemia (defined as a serum potassium below 4.0 mEq/liter) especially in patients with known heart disease and those at risk for cardiac arrhythmias.

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9. Miscellaneous electrocardiographic morphologies. In Lipman BS, Massie E, Kleiger RE (eds). *Clinical Scalar Electrocardiography*. Chicago, IL Year Book Medical Publishers, 1972, pp 276-282.

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Opportunity for general practice physician in Northwest Arkansas. This is a non-profit clinic looking for a full time physician. We have a state of the art clinic which is fully endowed by the Harvey and Bernice Jones Foundation with six exam rooms, two eye lanes and four dental operatories. We currently have two dentists on staff and are using volunteer physicians to see our medical patients. Our need for medical care has outgrown the volunteer staff so we are now looking for full time coverage. This is a ministry of the Episcopal Church but is interfaith in its mission. This is an office based practice without evenings or weekends. A hospital practice could be maintained if desirable.

Contact Sam Yates at 501-751-7417.



State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

HEPATITIS C - A Threat to Public Health

A test for Hepatitis C antibody was perfected in 1989, and at that time it was recognized as the predominant cause of Non-A, Non-B Hepatitis. Prior to that time, cases of Hepatitis that tested negative for Hepatitis A and B were suspected to be caused by other unidentified viruses, and were reported to state health departments as Non-A, Non-B Hepatitis of unknown origin.

The Centers for Disease Control & Prevention (CDC) estimates that approximately four million people in the United States are infected with Hepatitis C, and every year 30,000 more become infected. There are currently 8,000 deaths a year attributed to Hepatitis C. CDC projects that, without effective intervention by the year 2010, 38,000 deaths may occur annually.

Under the Rules & Regulations Pertaining to Communicable Disease Control, as approved by the State Board of Health, Hepatitis C is reportable to the Arkansas Department of Health. The disease is further reported to the CDC if it is an acute case, defined as one with compatible symptoms, negative IgM anti-HAV and HB core antibody tests, and antibody to Hepatitis C Virus (anti-HCV), verified by a supplemental test. Currently, blood and plasma donation centers use the repeatedly reactive ELISA III plus the RIBA III confirmation. The Polymerase Chain Reaction (PCR) test may also be used to identify viral RNA. In addition, liver enzyme tests must be elevated two and one half times normal. Usually the alanine aminotransferase or the aspartate aminotransferase will be elevated.

Each case reported is investigated and a surveillance report is rendered. In 1996, 462 positives were reported, including 189 females (40.9%) and 273 males (59.1%). The mean age of all cases was 39 years. However, only seven of the reported serologic positives were acute cases.

Review of surveillance reports showed that the major risk factor for Hepatitis C was IV drug abuse or tattoos. Before blood for transfusions was tested for the C virus, the major cause of Hepatitis C in the United States was blood transfusions.

Probably as a consequence of genetic diversity, HCV has the ability to escape immune surveillance, leading to a high rate of chronic infection.

Data on the natural history of HCV are limited because the onset of infection is often unrecognized.

About 85% of the HCV-infected individuals fail to clear the virus by six months, and develop chronic hepatitis with persistent-albeit sometimes intermittent-viremia. This capacity to produce chronic hepatitis is one of the most significant features of HCV infection, since these individuals remain infectious to others, contrasted to a carrier rate of approximately 5-10% for Hepatitis B patients.

There is currently no vaccine or globulin approved for the protection of contacts or family members. Precautions for transmission are the same for Hepatitis B.

Chronic HCV infection leads to cirrhosis in at least 20% of patients within two decades of onset of infection. Concomitant alcohol use encourages cirrhosis. The risk for a person with chronic HCV hepatitis developing hepatocellular carcinoma appears to be 1-5% after twenty years. About half of all liver transplants are the result of Hepatitis C infection.

Extrahepatic symptoms of immunologic origin occasionally occur and include glomerulonephritis and essential mixed cryoglobulinemia (EMC).

Interferon alpha-2b has been used for treatment of patients with chronic Hepatitis C. The antiviral drug of main interest is ribavirin. It has shown promise when used in combination with interferon. Studies using other antiviral agents are ongoing.

There is a need to raise awareness of the public health importance of HCV infection and to identify infected persons through improved surveillance for Hepatitis C in order to prevent transmission to others, monitor trends in incidence and risk group specific transmission, and encourage medical follow-up. CDC has drafted a nationwide plan for the prevention and control of HCV infection and reducing transmission in groups at high risk of infection. Three approaches are being used to identify and educate persons at risk of HCV infection: 1, verbal, written, and visual material directed to the public; 2, educational efforts directed to health care and public health professionals; and 3, development of community-based prevention programs.

For more information concerning Hepatitis C, call the Arkansas Department of Health, Epidemiology Division, at 661-2893 during normal weekday business hours, or 1-800-554-5738 at other times.

Reported Cases of Selected Diseases in Arkansas Profile for April 1997

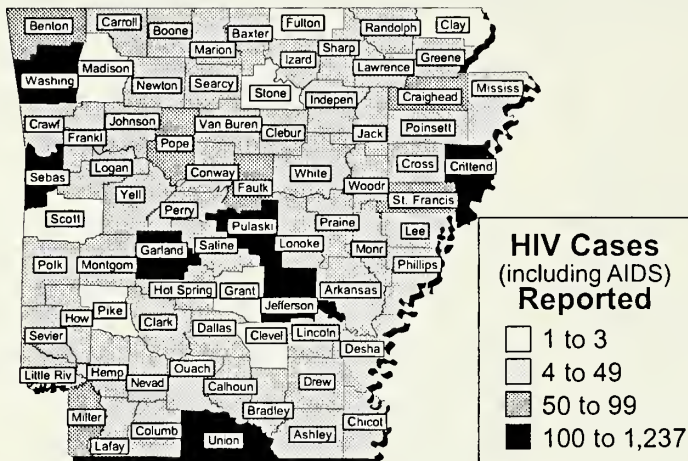
The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases April 1997	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	8	40	47	241	40	153
Giardiasis	9	55	39	182	34	131
Shigellosis	7	37	25	176	35	176
Salmonellosis	17	54	75	455	51	338
Hepatitis A	26	101	195	503	82	663
Hepatitis B	5	23	36	88	20	83
HIB	0	0	0	0	0	1
Meningococcal Infections	3	21	20	35	20	39
Viral Meningitis	2	9	11	38	5	33
Lyme Disease	0	0	7	27	3	12
Rocky Mountain Spotted Fever	1	1	2	22	3	31
Tularemia	1	3	5	20	2	22
Measles	0	0	0	0	2	2
Mumps	0	0	0	1	4	6
Gonorrhea	355	1589	1622	5050	1649	5437
Syphilis	81	218	319	706	332	1017
Legionellosis	0	0	0	1	4	8
Pertussis	0	2	3	15	9	59
Tuberculosis	19	48	62	225	71	271

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

HIV In Arkansas

Distribution Of Cases 1983 through May 12, 1997



HIV Cases By County

County	1983-5/12/97	Jun 96-May 97
Arkansas	18	4
Ashley	19	*
Baxter	27	*
Benton	89	7
Boone	30	*
Bradley	15	*
Calhoun	7	0
Carroll	38	*
Chicot	19	*
Clark	16	5
Clay	*	*
Cleburne	13	*
Cleveland	*	0
Columbia	20	*
Conway	20	0
Craighead	67	7
Crawford	33	0
Crittenden	159	19
Cross	20	*
Dallas	8	0
Desha	17	*
Drew	12	*
Faulkner	62	*
Franklin	5	0
Fulton	*	*
Garland	134	8
Grant	*	0
Greene	22	*
Hempstead	20	*
Hot Spring	22	0
Howard	9	*
Independence	28	0
Izard	6	0
Jackson	9	*
Jefferson	160	14
Johnson	11	0
Lafayette	6	0
Lawrence	12	*
Lee	12	0
Lincoln	4	0
Little River	11	*
Logan	6	*
Lonoke	24	0
Madison	*	0
Marion	4	0
Miller	89	7
Mississippi	43	4
Monroe	13	0
Montgomery	6	0
Nevada	4	*
Newton	5	*
Ouachita	33	4
Perry	5	0
Phillips	36	4
Pike	*	0
Poinsett	15	0
Polk	12	*
Pope	55	*
Prairie	6	0
Pulaski	1237	89
Randolph	5	*
St. Francis	75	8
Saline	24	*
Scott	*	0
Searcy	5	*
Sebastian	208	8
Sevier	10	*
Sharp	10	*
Stone	*	*
Union	115	6
Van Buren	5	0
Washington	280	34
White	35	7
Woodruff	4	0
Yell	11	*
Prisons	102	12

* Case numbers of 1-3 are not reported.

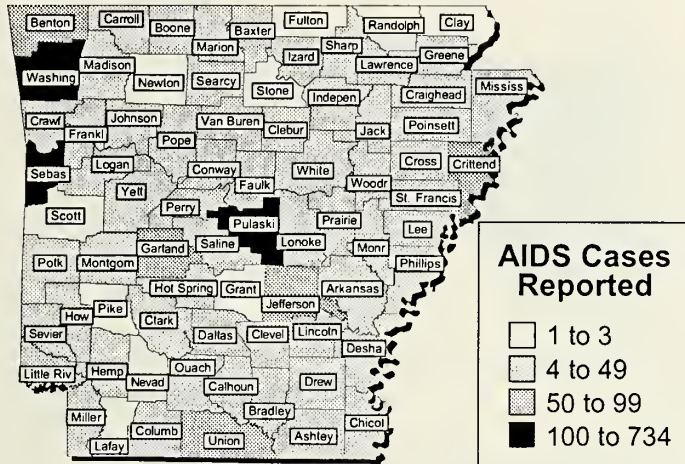
Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-89	1990	1991	1992	1993	1994	1995	1996	1997	Total	%
SEX	Male	510	367	376	374	339	346	323	266	112	3,013	82
	Female	64	67	87	76	89	89	89	78	35	674	18
AGE	Under 5	4	8	13	6	3	7	2	1	6	50	1
	5-12	2	5	1	2	1	0	1	0	0	12	0
	13-19	15	14	18	25	11	21	11	21	6	142	4
	20-24	94	61	43	48	59	58	44	29	15	451	12
	25-29	144	105	100	99	106	80	73	60	19	786	21
	30-34	128	105	114	106	89	93	97	84	26	842	23
	35-39	91	70	86	63	75	69	80	70	28	632	17
	40-44	43	38	47	39	45	48	46	35	21	362	10
	45-49	29	12	19	25	16	27	22	18	17	185	5
	50-54	8	7	14	14	10	10	17	14	3	97	3
	55-59	7	6	3	12	6	6	6	6	4	56	2
	60-64	2	1	2	6	5	9	7	1	1	34	1
	65 and older	7	2	3	5	2	7	6	5	1	38	1
RACE	White	385	290	280	280	264	244	253	187	75	2,258	61
	Black	185	141	180	164	159	180	150	145	64	1,368	37
	Hispanic	2	0	3	4	1	7	3	6	1	27	1
	Other/Unknown	2	3	0	2	4	4	6	6	7	34	1
RISK	Male/Male Sex Injection Drug User (IDU)	327	230	242	246	231	211	169	131	33	1,820	49
	Male/Male Sex + IDU	79	68	89	71	62	71	55	28	10	533	14
	Heterosexual (Known Risk)	77	38	32	37	28	23	28	23	4	290	8
	Transfusion	52	55	65	65	96	98	65	67	25	588	16
	Perinatal	16	6	8	10	1	2	3	2	0	48	1
	Hemophiliac	4	8	13	8	4	7	3	1	6	54	1
	Undetermined	6	18	5	6	2	3	5	0	0	45	1
		13	11	9	7	4	20	84	92	69	309	8
	TOTAL	574	434	463	450	428	435	412	344	147	3,687	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

AIDS In Arkansas

Distribution Of Cases 1983 through May 12, 1997



Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-89	1990	1991	1992	1993	1994	1995	1996	1997	Total	%
SEX	Male	231	162	171	243	325	253	238	212	72	1,907	86
	Female	21	19	25	34	63	42	35	54	18	311	14
AGE	Under 5	2	6	6	3	2	1	2	0	6	28	1
	5-12	1	1	1	0	1	0	2	0	0	6	0
	13-19	0	4	3	2	4	3	1	3	1	21	1
	20-24	23	10	14	14	31	22	11	14	5	144	6
	25-29	58	41	42	65	78	45	46	46	12	433	20
	30-34	62	44	42	70	95	80	75	75	19	562	25
	35-39	53	32	37	55	77	52	49	54	19	428	19
	40-44	21	18	33	27	48	40	35	37	14	273	12
	45-49	12	14	6	22	26	22	17	21	8	148	7
	50-54	4	5	5	7	10	12	15	4	2	64	3
	55-59	8	1	4	8	8	5	6	7	2	49	2
	60-64	3	1	1	2	5	10	5	1	0	28	1
	65 and older	5	4	2	2	3	3	9	4	2	34	2
RACE	White	192	133	132	200	264	189	174	144	56	1,484	67
	Black	57	46	63	73	120	103	96	116	32	706	32
	Hispanic	1	0	1	3	3	2	3	4	1	18	1
	Other/Unknown	2	2	0	1	0	1	1	2	1	10	0
RISK	Male/Male Sex Injection Drug User (IDU)	142	112	114	175	229	162	136	120	31	1,221	55
	Male/Male Sex + IDU	27	17	29	41	67	47	47	27	8	310	14
	Heterosexual (Known Risk)	49	19	21	27	29	25	24	23	3	220	10
	Transfusion	15	10	11	20	52	41	35	53	15	252	11
	Perinatal	13	7	8	6	1	4	3	3	0	45	2
	Hemophiliac	2	6	6	3	3	1	3	0	6	30	1
	Undetermined	2	5	5	4	5	6	7	1	0	35	2
	Undetermined	2	5	2	1	2	9	18	39	27	105	5
TOTAL		252	181	196	277	388	295	273	266	90	2,218	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

AIDS Cases By County

County	1983-5/12/97	Jun 96-May 97	Case Rate Per 100,000
Arkansas	9	0	0.0
Ashley	15	*	4.1
Baxter	22	0	0.0
Benton	72	9	9.2
Boone	24	*	10.6
Bradley	11	*	8.5
Calhoun	6	0	0.0
Carroll	23	0	0.0
Chicot	11	*	12.7
Clark	10	*	9.3
Clay	*	*	5.5
Cleburne	7	0	0.0
Cleveland	4	0	0.0
Columbia	15	*	3.9
Conway	14	0	0.0
Craighead	47	4	5.8
Crawford	26	*	2.4
Crittenden	81	13	26.0
Cross	11	*	10.4
Dallas	5	*	10.4
Desha	9	*	11.9
Drew	7	*	5.8
Faulkner	48	5	8.3
Franklin	4	0	0.0
Fulton	*	*	10.0
Garland	82	6	8.2
Grant	*	0	0.0
Greene	12	*	6.3
Hempstead	11	*	4.6
Hot Spring	16	*	7.7
Howard	6	0	0.0
Independence	15	0	0.0
Izard	5	0	0.0
Jackson	4	0	0.0
Jefferson	90	15	17.5
Johnson	7	0	0.0
Lafayette	*	0	0.0
Lawrence	11	*	5.7
Lee	7	0	0.0
Lincoln	4	0	0.0
Little River	5	0	0.0
Logan	7	*	9.7
Lonoke	22	*	2.5
Madison	4	0	0.0
Marion	4	0	0.0
Miller	47	5	13.0
Mississippi	17	*	3.5
Monroe	6	*	8.8
Montgomery	5	0	0.0
Nevada	*	1	9.9
Newton	*	0	0.0
Ouachita	21	*	3.3
Perry	4	0	0.0
Phillips	19	*	10.4
Pike	*	0	0.0
Poinsett	8	0	0.0
Polk	9	*	5.8
Pope	27	*	4.4
Prairie	5	0	0.0
Pulaski	734	79	22.6
Randolph	*	*	6.0
St. Francis	34	8	28.1
Saline	17	*	3.1
Scott	*	0	0.0
Searcy	5	*	25.5
Sebastian	127	8	8.0
Sevier	8	*	7.3
Sharp	8	*	21.3
Stone	*	0	0.0
Union	67	8	17.1
Van Buren	4	0	0.0
Washington	167	20	17.6
White	20	4	7.3
Woodruff	4	0	0.0
Yell	8	*	11.3
Prisons	32	7	n/a

* Case numbers of 1-3 are not reported.

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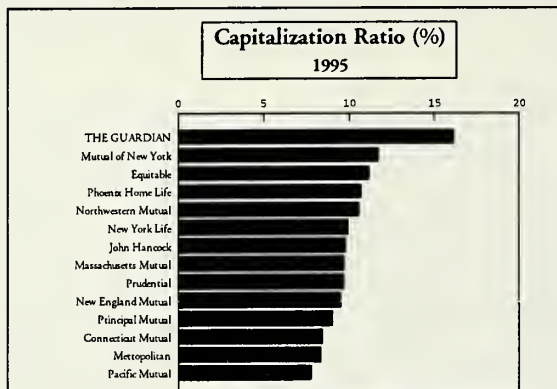
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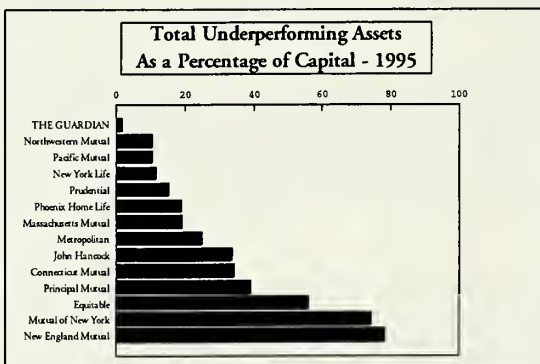


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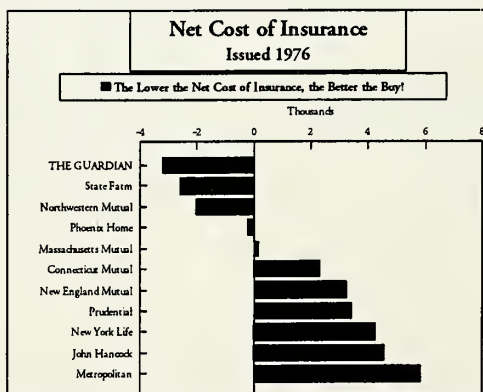
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Diamond, Kevin Michael, Family Medicine. Medical Education, UAMS, 1993. Internship/Residency, AHEC-NE, 1995/1997. Board pending.

BOONEVILLE

Khan, Ahmed I., Surgeon/Vascular. Medical Education, Notre Dame College/Dacca Medical College, Pakistan, 1972. Internship, Providence Hospital, Georgetown University, 1978. Residency, Methodist Hospital, Brooklyn, New York, 1981. Board certified.

DUMAS

Moin, Khurram, Internal Medicine/Nuclear Medicine. Medical Education, Dow Medical School, Pakistan, 1989. Internship, New York Medical Center, Westchester College of Medicine Center, 1992. Residency, State University of New York at Stony Brook University, 1994. Fellowship, University of Utah, Salt Lake City, 1996. Board certified.

EL DORADO

Conly, Patricia W., Pediatrics. Medical Education, Medical College of Pennsylvania, Philadelphia, 1960. Internship, Nassau College of Medicine Center, New York, 1961. Residencies, Bellevue Hospital, New York, 1962 and Jackson Memorial Hospital, Miami Florida, 1963. Board certified.

White, Gary C., Family Practice. Medical Education, Universidad Mundial Dominicana, Santo Domingo, Dominican Republic, 1989. Residency, AHEC-El Dorado, 1997.

HOT SPRINGS

Angel, Carol Ann, Anesthesiology/Pediatrics. Medical Education, University of Arkansas College of Medicine, 1989. Internship/Residency, Pediatrics/Arkansas Children's Hospital and UAMS, 1990/1992. Second residency, Anesthesiology/UAMS, 1996. Board certified.

JACKSONVILLE

Schultz, Charles Edward, Neurology. Medical Education, Medical College of Ohio at Toledo, 1992. Internship, Ohio State University, 1993. Residency/Fellowship, Indiana University, 1996/1997.

LITTLE ROCK

Beheshti, Michael V., Interventional Radiology. Medical Education, University of Utah, Salt Lake City,

1984. Internship, USAF Medical Center, 1985. Residency, Yale University School of Medicine, 1991. Board certified.

Eshun, John K., Pediatrics. Medical Education, Instituto Superior de Ciencias Medicas, Habana, Cuba, 1988. Internship/Residency, Miami Children's Hospital, Miami, Florida, 1994/1996.

Franks, Hayden High, Dermatology. Medical Education, UAMS, 1993. Internship/Residency, Internal Medicine/Dermatology, UAMS, 1994/1997. Board pending.

Hatfield, Patrick M., Dermatology. Medical Education, University of Nevada School of Medicine, Reno, 1993. Internship/Residency, UAMS, 1994/1997.

Hou, Di, Family Medicine. Medical Education, The 4th Military Medical University, Xian, China, 1983. Internship/Residency, UAMS, 1995/1997.

Kiser, Thomas Scott, Physical Medicine & Rehabilitation. Medical Education, University of Missouri, Columbia, 1993. Internship/Residency, UAMS, 1993/1996.

Lowther, Laura Marie, Pathology. Medical Education, Louisiana State University Medical Center, Shreveport, 1991. Internship/Residency, UAMS, 1996. Fellowship, Hematopathology, UAMS, 1996.

Muwalla, Firas Rifat, Internal Medicine. Medical Education, University of Jordan School of Medicine, Amman, Jordan, 1995. Internship/Residency, UAMS, 1995/1997.

Pieper, Daniel Roy, Neurosurgery. Medical Education, Medical College of Virginia, Richmond, 1991. Internship/Residency, Baylor College of Medicine, 1992/1997.

Walker, Yvette R., Anesthesiology. Medical Education, Meharry Medical College, Nashville, Tennessee, 1990. Internship/Residency, Henry Ford Hospital, Detroit, Michigan, 1991/1994.

NORTH LITTLE ROCK

Bevans, David Wilson, III, General Surgery. Medical Education, UAMS, 1992. Internship/Residency, UAMS, 1993/1997.

Caldwell, Charles Robert, Cardiology. Medical Education, UAMS, 1991. Internship/Residency, Emory University, Atlanta, Georgia, 1992/1994. Fellowship, UAMS, 1997. Board certified.

PINE BLUFF

Garner, Kimberly K., Family Practice. Medical Education, UAMS, 1994. Internship/Residency, UAMS, AHEC-Pine Bluff, 1995/1997.

SEARCY

Brown, Mark Andrew, Anesthesiology/Pain Management. Medical Education, UAMS, 1990. Internship/Residency, UAMS, 1991/1994. Board certified.

Duke, John Richard, Family Practice. Medical Education, UAMS, 1994. Internship/Residency, UAMS, 1995/1997. Board pending.

SILOAM SPRINGS

Meehan, Ralph E., Jr., Internal Medicine. Medical Education, Kirksville College of Osteopathic Medicine, Missouri, 1994. Internship/Residency, Deaconess Medical Center West, 1995/1997.

OUT OF STATE

Jacobs, Gary Robert, Plastic & Reconstructive Surgery. Medical Education, University of Texas at Houston, 1975. Internship, St. Louis University, 1979. Residency, University of Texas Health Science Center, 1983. Board certified.

Spence, Shanna Hill, Family Practice. Medical Education, UAMS. Internship/Residency, AHEC-SW, 1994/1996. Board certified.

White, J. Harold, Jr., Obstetrics/Gynecology. Medical Education, University of Tennessee, Memphis, 1967. Internship, St. Joseph Hospital, Phoenix, Arizona, 1968. Residency, Baptist Memorial Hospital, Memphis, 1971. Board certified.

RESIDENTS

Bacon, Lori Beth, Emergency Medicine. Medical Education, UAMS, 1997. Residency, UAMS.

Cheney-Carroll, Lori Marie, Internal Medicine. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Cole, David W., Surgery/Orthopaedics. Medical Education, UAMS, 1997. Internship/Residency, Walter Reed, Washington, D.C.

Conaway, Jeffrey R., Transitional/Radiology. Medical Education, UAMS, 1997. Internship/Residency, UAMS/University of Missouri at Columbia.

Cox, Judd Graham, Pediatrics. Medical Education, University of Texas Medical School at San Antonio, 1997. Residency, UAMS, Arkansas Children's Hospital.

Eckles, Laura Ward, Internal Medicine. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Ferrer, Bernard Francis, Pediatrics. Medical Education, Louisiana State University Medical Center, New Orleans, 1996. Internship, UAMS.

Fisher, Scott, Family Medicine. Medical Education, UAMS, 1997. Internship, UAMS.

Garrison, Robert Leo, II, Transitional Medicine/Orthopaedic Surgery. Medical Education, University of Missouri, Kansas City, 1997. Internship/Residency, UAMS.

Harris, Daniel J., Transitional. Medical Education, UAMS, 1997. Internship, UAMS.

Holmes, RonaBeth Robbins, Medicine/Dermatology. Medical Education, Louisiana State University School of Medicine, Shreveport, 1997. Internship/Residency, UAMS.

Hoover, Melanie Denise, Transitional/Radiology. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Hord, Marion Edward, Family Medicine. Medical Education, UAMS, 1997. Internship, UAMS, AHEC-SW.

Jayaprabhu, Sudheer Morugu, Obstetrics/Gynecology. Medical Education, Texas A & M College of Medicine, College Station, 1997. Residency, UAMS.

Kauphusman, Tessa Marie, Pediatrics. Medical Education, University of Kansas Medical Center, Kansas City, 1997. Residency, Arkansas Children's Hospital.

Kyser, Steven McClane, Pathology. Medical Education, UAMS, 1997. Residency, UAMS.

Leatherman, Bryan David, General Surgery/Otolaryngology. Medical Education, University of Mississippi, Jackson, 1997. Internship/Residency, UAMS.

Lueders, Andrew J., Family Medicine/Obstetrics. Medical Education, UAMS, 1993. Residency, McLeod Regional Family Medicine Residency, Florence, S.C., 1996. Fellowship, Braclumridge Hospital, Austin, Texas.

Morgan, Kelly Jean, Medicine/Pediatrics. Medical Education, Louisiana State University Medical School, Shreveport, 1997. Internship/Residency, UAMS/Arkansas Children's Hospital.

Nolen, Michael T., General Surgery. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Nowell, Rebecca, Annette, Pediatrics. Medical Education, UAMS, 1997. Residency, Arkansas Children's Hospital.

Peebles, Jody W., Psychiatry. Medical Education, UAMS College of Medicine, 1997. Internship/Residency, UAMS.

Robinson, Lonnie Stewart, Family Practice. Medical Education, UAMS, 1997. Residency, UAMS, AHEC-NW.

Rowe, Tracy Lynn, Pediatrics. Medical Education, UAMS, 1997. Residency, UAMS.

Russ, Jennifer Vermaelen, Pediatrics. Medical Education, Louisiana State University, New Orleans, 1997. Internship/Residency, UAMS - Arkansas Children's Hospital.

Scurlock, John Preston, Radiology. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Sims, LaRhonda Kay, Family Medicine. Medical Education, UAMS, 1997. Internship/Residency, University of Tennessee, Jackson.

Stockburger, John Scott, Family Practice. Medical Education, UAMS, 1997. Residency, UAMS.

Tygart, Bryan Phillip, Internal Medicine. Medical Education, UAMS, 1997. Internship, UAMS.

Wanker, Frank L., Family Practice. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1997. Internship, UAMS, AHEC-Ft. Smith.

Williams, Veronica Lynn, Psychiatry. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

STUDENTS

W. Brian Bailey

Brandy Alexis Long

Johnna Duke Raymond

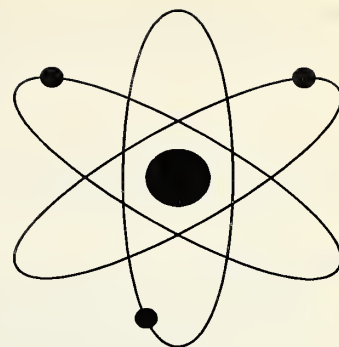
Teresa Tenpenny

Radiological Case of the Month

David Harshfield, M.D., Editor

Authors

David Hays, M.D.
W.R. Young, M.D.
S.A. Ahmed, M.D.



Clinical History:

76 year old female with abdominal pain.



Figure 1



Figure 2

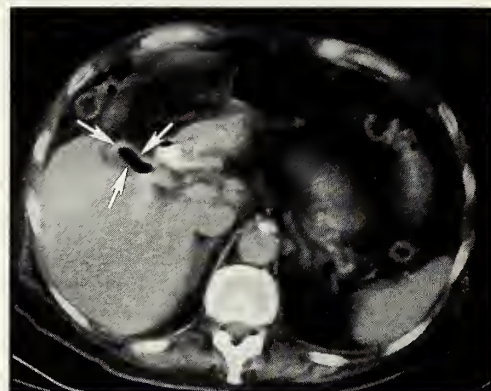


Figure 3

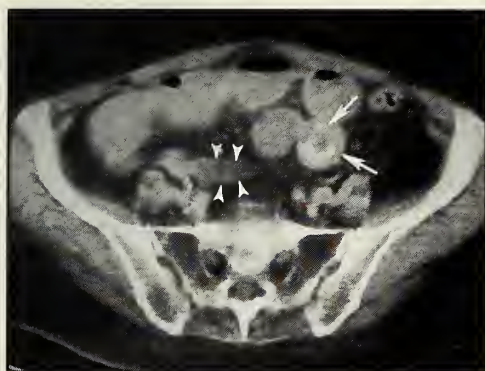


Figure 4

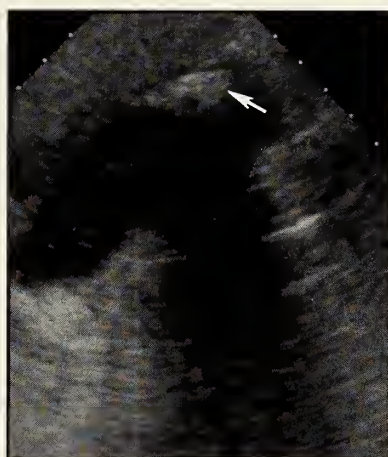


Figure 5

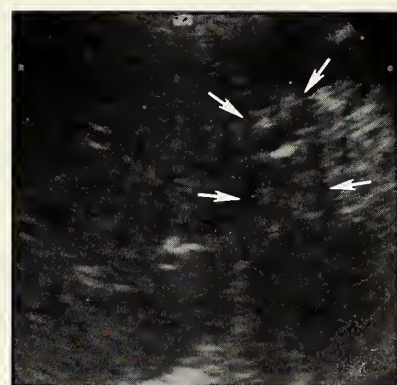


Figure 6

Findings:

Figures 1 and 2, Upright and Recumbent views of the abdomen demonstrate a partial small bowel obstruction and branching lucency over the RUQ consistent with pneumatobilia (arrowheads). Figures 3 and 4, axial CT images demonstrate air within the gallbladder (short arrows), dilated small bowel loops, and a calcified stone (long arrow) within a small bowel loop in the left lower quadrant. Note the collapsed loop of small bowel just posterior to the loop of bowel that contains the stone (arrowheads). Figure 5, Transverse US image demonstrating a large stone within the gallbladder (arrow). Figure 6, similar US image eighteen months later in which it is difficult to identify the gallbladder. There is an area of increased echogenicity in the region of the gallbladder fossa with "dirty" posterior acoustic shadowing (arrows) consistent with air in the gallbladder lumen.

Gallstone ileus

Diagnosis: Gallstone ileus

Discussion:

Gallstone ileus actually represents a mechanical small bowel obstruction which develops after the erosion of a gallstone through the wall of the gallbladder and into a portion of the gastrointestinal tract. The fistula is most often formed between the gallbladder and the duodenum, however the stomach or colon can be involved.¹ The fistula most likely originates with a stone obstructing the cystic duct with resultant acute cholecystitis, empyema and development of adhesions between the gallbladder and adjacent viscera. Perforation then occurs between the organs and the stone traverses the fistula. Smaller stones are usually passed per rectum without incident, however larger stones may cause obstruction which most commonly occurs in the terminal ileum.² Gallstone ileus accounts for approximately 1-3% of all intestinal obstructions, but is reported to cause up to 20% of obstructions in patients over the age of 65. Overall this condition develops in <1% of all patients with cholelithiasis. There is an overwhelming female predominance in this condition paralleling the higher incidence of cholelithiasis in the female population.

Correct preoperative diagnosis is infrequently made, ranging from 10-30% in several series.² The classic plain film findings of pneumatobilia, small bowel obstruction (partial or complete), and calcified gallstone known as "Rigler's triad" are pathognomonic of gallstone ileus. However, the complete triad is not seen on plain films in most cases. Computed tomography can be helpful in locating the stone if it is not visible by plain film. These patients present clinically with history of nausea, vomiting, cramping which may be intermittent. With complete obstruction, the vomiting will be increased and the patient may be obstipated. Initial therapy is often fluid and electrolyte replacement to correct deficiencies and a nasogastric tube to decompress the stomach.² Definitive treatment consists of locating the stone (or stones) and removing them, as well as cholecystectomy and primary closure of the fistula. The recurrence rate of 5-10% results from retained stones within the intestine not found at the time of surgery.

Follow-up:

At surgery a large stone was removed from the ileum. A cholecystectomy was performed, and a cholecystoduodenal fistula was closed. The patient recovered well and was discharged home.

References:

1. Friedman AC, Dachman AH, Radiology of the liver, biliary tract and pancreas. St. Louis: Mosby, 1994.
2. Schwartz SI, Shires GT, Spencer FC, Principles of Surgery Fifth Edition. New York: McGraw-Hill, 1989.

Authors:

David Hays, M.D., fourth year Radiology resident at UAMS
W.R. Young, M.D., Holt Krock Clinic, Waldron, Arkansas.
S.A. Ahmed, M.D., P.A., Booneville, Arkansas.

Editor:

David Harshfield, M.D., Director of Imaging at Riverside Imaging Center in North Little Rock and Director of Radiology at the Arkansas Heart Hospital in Little Rock.

Resolutions

James Kelly Cornett, M.D.

WHEREAS, the members of the Pulaski County Medical Society note with sorrow the recent death of an esteemed member, James Kelly Cornett, M.D.; and

WHEREAS, Dr. Cornett's faithful membership in this Society for thirty-seven years, as well as his membership in numerous other professional organizations, gave evidence of his abiding concern for the advancement and improvement of medicine; and

WHEREAS, the Arkansas Chapter of the American Heart Association honored Dr. Cornett for twenty-eight years of volunteer service by naming him a Volunteer of the Year and by presenting an annual award in his honor; and

WHEREAS, Dr. Cornett will be remembered by his patients and peers alike as a caring and capable physician;

BE IT THEREFORE RESOLVED:

THAT, this resolution be adopted and placed in the archives of this Society; and

THAT, a copy of this resolution be sent to Dr. Cornett's family as a token of our genuine sympathy; and

THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

All Resolutions Adopted
Board of Directors
May 21, 1997

By Order of the Memorials Committee
Fred O. Henker, III, M.D., Chairman
James W. Headstream, M.D.
Bruce E. Schratz, M.D.

Charles H. Kennedy, M.D.

WHEREAS, the members of the Pulaski County Medical Society are saddened to learn of the recent death of a long-time member, Charles H. Kennedy, M.D.; and

WHEREAS, Dr. Kennedy was a loyal and respected member of this Society for forty-four years; and

WHEREAS, the memory of Dr. Kennedy as a compassionate doctor and friend will continue in the hearts and minds of all who knew him;

BE IT THEREFORE RESOLVED:

THAT, this resolution be adopted and filed in the permanent records of this Society; and

THAT, a copy of this resolution be mailed to Dr. Kennedy's family as an expression of our heart-felt sorrow; and

THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

All Resolutions Adopted
Board of Directors
May 21, 1997

By Order of the Memorials Committee
Fred O. Henker, III, M.D., Chairman
James W. Headstream, M.D.
Bruce E. Schratz, M.D.

In Memoriam

John Roger Clark, M.D.

Dr. John Roger Clark of Little Rock died Wednesday, June 4, 1997. He was 44. He is survived by his wife Margaret Clark; children, Molly McNabb Clark, Rebecca Holland Clark, John Roger Clark, Jr., Christopher Holland Clark and Benjamin Henderson Clark; his mother, Iris Holland Clark of Benton; brothers, Kenneth Henderson Clark of Whitwell, Tenn., and Philip Holland Clark of Russellville; sisters, Mary Ann Watson of Little Rock and Susan Elaine Belew of Benton.

Things To Come

September 4-6

International Symposium on Gasless Laparoscopy. Bochum, Germany. Sponsored by the American Association of Gynecologic Laparoscopists. For more information, call 1-800-554-2245.

September 5-7

4th Annual Current Topics in Cardiothoracic Anesthesia. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

September 18-20

Contemporary Cardiothoracic Surgery. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

September 23-28

International Congress of Gynecologic Endoscopy/AAGL 26th Annual Meeting. The Washington State Convention & Trade Center, Seattle, Washington. Sponsored by the American Association of Gynecologic Laparoscopists. For more information, call 1-800-554-2245.

October 15-19

2nd Annual CME Course - Infectious Disease '97 Board Review: A Comprehensive Review for Board Preparation. The Ritz-Carlton, Tysons Corner, McLean, Virginia. Sponsored by The Center for Bio-Medical Communication, Inc. For more information, call (201) 385-8080.

October 26-30

1997 State-of-the-Art Conference: Occupational and Environmental Medicine. Nashville, Tennessee. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call (847) 228-6850, ext. 152.

November 13-14

23rd Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

AMS Sponsors Workshops

September 23, 1997

Basic CPT for Family Practice/Internal Medicine

September 24, 1997

Basic ICD-9 for all specialties

September 25, 1997

Basic CPT/ICD-9 for General Surgery

October 16, 1997

Managed Care Update:

Advanced Strategies for Practice Survival

This workshop will show you how to become more proactive in the managed care marketplace. Numerous case examples will be used to illustrate the following topics:

- * getting into the better plans *
- * tracking managed care plan results *
- * reorganize some of the staff jobs *
- * learn about outcome studies *
- * determine ways to reduce practice overhead in a reduced-reimbursement environment *

October 23, 1997

Basic Medical Insurance & Medicare Filing

December 4, 1997

Coding Analysis

to Maximize Reimbursement in 1997

A hands-on workshop with informative case studies. Major emphasis is on the complex relationship between the procedure, the diagnosis, place of service, provider status and patient financial class for traditional and non-traditional (HMO/PPO) claims processing. Workshop requires a background in the basics of CPT, ICD-9 and the HCFA-1500.

**For more information,
call 501-224-8967**

Keeping Up

October 3 - 5

Primary Care Update (Management of Top 20 Ambulatory Diagnoses). Location: Gaston's Lodge on the White River. Sponsor: Washington Regional Medical Center. For more information, call 501-442-1823 or 1-800-422-0322.

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

General Internal Medicine Review, Wednesdays, 12:00 noon, Room 238 Bldg. 1
Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.

Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital/OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
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Cardiology Conference, dates vary, 7:00 p.m., locations vary
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Geriatrics Conference, 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.
Tumor Conference, 4th Tuesday, 12:00 noon, Medical Center of South AR, Warner Brown Campus
Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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Cover artwork titled "Sunny Sunday" is of an oil painting by Roger Carlisle of State University, Arkansas. Artwork was made available by the Arkansas Artists Registry, a part of the Arkansas Arts Council, an agency of the Department of Arkansas Heritage.

Hepatitis C - A Silent Epidemic

Waqar A. Qureshi, M.D.

Widespread screening of donor blood for hepatitis B led to the recognition that most cases of post-transfusion hepatitis were probably due to some other agent or agents. The term non-A, non-B hepatitis was used. In 1988 a new agent, hepatitis C virus was identified as the major cause of chronic post-transfusion hepatitis. It is estimated that about 150,000 new cases of hepatitis C occur each year and about 80% of these patients will go on to develop chronic liver disease of which about 20 percent will progress to cirrhosis. Transfusion associated hepatitis C accounts for less than 10 percent of all cases of hepatitis C in the United States. The probability of contracting the disease is much less now that all blood is tested. A recent NIH study showed that the risk of HCV transmission was between 1 in 66,000 to 80,000 transfusions or 250 to 305 transmissions per year. Alarming, almost one-half of the patients with hepatitis C have no obvious risk factors. The other 50% have history of parenteral exposure through intravenous drug abuse, tattoos, etc. There is also a very small but definite risk of transmission of the virus through sexual intercourse.

The virus has certainly been isolated in various bodily fluids and this should prompt common sense precautions (e.g., not sharing toothbrushes, etc.). There is a 3-10% risk of disease transmission following accidental needle-stick towards health care professionals. The mother to baby vertical transmission risk is about 5%. Therapy for chronic hepatitis C with recombinant human alpha-interferon offers a chance at a cure or significant palliation even though a sustained response or cure is seen in less than 25%. Ribavirin is another antiviral agent which when given in combination with interferon is showing promising results in various pilot studies. The search for newer, more effective agents continues. Liver transplantation will prolong survival in patients with end stage cirrhosis from hepatitis C. These patients do better than those with hepatitis B since clinically important reinfection with hepatitis C occurs much less commonly post transplantation than in patients with hepatitis B.

Historic Perspective

Until the mid 1970s, only two types of viral hepatitis were recognized. Hepatitis A or infectious hepatitis, was transmitted by the fecal-oral route and after an incubation period of two to six weeks produced liver disease that did not progress to chronicity. The second, hepatitis B or serum hepatitis, was believed to be transmitted parenterally and had an incubation period of six weeks to six months. This in some instances went on to produce chronic liver disease. However, following the development of specific serological markers, it became clear that HBV was not the primary agent of transfusion-related hepatitis and so the term non-A, non-B hepatitis was coined. The differential diagnosis includes infection with hepatitis A virus (HAV), hepatitis B virus (HBV), Epstein-Barr virus and cytomegalovirus, exposure to hepatotoxic drugs, non-alcoholic steato-hepatitis, congestive heart failure, biliary tract disease and alcoholic liver disease. Recently, molecular biologic techniques have been used to identify a single stranded RNA virus now believed to be the cause of transfusion-associated non-A, non-B hepatitis. This agent has been named hepatitis C and now joins the ranks of the other established forms, i.e., hepatitis A, hepatitis B, hepatitis D and hepatitis E. The last of these was previously referred to as epidemic non-A, non-B hepatitis and is prevalent in the third world.

Clinical Features

It is uncommon to see acute hepatitis C infection since this stage is often subclinical. Unfortunately it is at this stage that it is most treatable at the present time. The most common symptom appears to be fatigue. In those who experience symptoms, hepatitis C is usually mild and the patient is often anicteric. It has an incubation period of four days to eight weeks, which is intermediate between that of hepatitis A (mean 3 weeks) and that of hepatitis B (mean 12 weeks). The patient also experiences anorexia and nausea. Common signs include jaundice, fever and tender hepatomegaly. Most patients we see have chronic infection and are totally asymptomatic. Many would not be identified if enzyme monitoring were not conducted. Most characteristic of hepatitis C is the episodic fluctuating

* Dr. Qureshi is Assistant Professor of Medicine at UAMS and staff physician in the Division of Digestive Diseases & Nutrition at John L. McClellan VA Medical Center in Little Rock.

pattern of the aminotransferase activity with intervening periods of normal or near normal levels. The most significant feature of the infection is the frequency with which patients develop chronic liver disease. Although up to 50% of patients develop a cryoglobulinemia only a small percentage have clinical manifestations such as vasculitic rash or renal disease.

Epidemiology

There are at least six genotypes of the virus identified with over 80 subtypes. Genotype 1a and 1b are most common in the US. This Genotype is also the most resistant to treatment with interferon. Genotypes found in Japan are more responsive to treatment so that clinical trial outcomes from there should be interpreted with caution here. HCV may be detected in 70-80 percent of cases of post-transfusion hepatitis (now uncommon) and in up to 50 percent of cases of sporadic non-A, non-B hepatitis. The prevalence of anti-HCV in the healthy population is about 3 to 4 percent. The incidence in potential blood donors is 0.5 to 1 percent. Most intravenous drug abusers are anti-HCV positive. Ten to thirty percent of patients receiving chronic hemodialysis and 60 percent of hemophiliacs are also anti-HCV positive.

Serologic Testing

The original antibody test was based on a non-structural protein (C100-3). Unfortunately, this ELISA test had a high rate of false positives especially in the liver diseases causing hypergammaglobulinemia such as autoimmune chronic active hepatitis or other chronic inflammatory diseases. It also lacks sensitivity particularly early on in the infection. Recently a more specific ELISA test has been developed which decreases the number of false positive results. In addition, recombinant immunoblot assays, RIBA 1 and RIBA 2 have now been developed. These are more specific for antibodies to HCV and at the UAMS Medical Center, RIBA 2 is used a "confirmatory" test when the ELISA test is positive. The RIBA tests, in addition to detecting (C 100-3) viral protein detect three or four recombinant antigens, including 5-1-1, c33c, and c22-3. The RIBA tests may detect antibody one to three months before the ELISA test turns positive. The gold standard is the hepatitis C polymerase chain reaction (PCR) test which identifies the hepatitis C virus itself. There is limited availability of this test at present. PCR can detect HCV one to two weeks after infection. A negative ELISA test for HCV or 'indeterminate' results of RIBA testing in the face of a history suggestive of HCV infection should prompt one to wait and repeat the tests or perform the PCR test to detect HCV if treatment is planned. The HCV-RNA determination by polymerase chain reaction (PCR) is the most sensitive and specific test available to diagnose viremia with the hepatitis C virus. I think it will eventually become the only test necessary for diagnosis and follow-up of response to treatment.

Alpha-Interferon

The most promising agent for the treatment of hepatitis C is the anti-viral agent alpha-interferon. Interferons have a wide spectrum of anti-viral, anti-proliferative and immunomodulatory effects. Alfa-interferons are produced by monocytes and lymphocytes in response to viral and antigenic stimuli. After cellular uptake interferons are responsible for the induction of proteins that mediate anti-viral actions. Interferons may stimulate cytokine production or activate macrophages and cytotoxic T-cells or may inhibit viral entry into cells or viral replication. The end result is reduction in intercellular viral transmission and inhibition of viral replication. Several randomized double-blind control trials have been performed to evaluate the efficacy of alpha-interferon in the treatment of chronic hepatitis C. A liver biopsy should be performed in patients with suspected chronic hepatitis C. Patients with chronic active hepatitis, with or without cirrhosis, should be considered for treatment. Until the true risk of progression is clarified, it may be prudent to follow some patients with chronic persistent hepatitis with yearly liver biopsies unless the degree of symptoms compels treatment. Recombinant alpha-interferon has been shown to reduce serum aminotransferase levels to normal and improve histologic activity of disease in many patients with chronic hepatitis C. Biochemical improvement is usually seen within the first 12 weeks of therapy in those who will respond. Re-treatment should be considered when persistent reevaluation of serum ALT occurs. Although remission can be reinduced and then maintained at a lower dose of interferon, the duration of maintenance therapy is unknown.

Side Effects of Interferon

The side effects of interferon can be divided into early side effects and late side effects. Early side effects usually consist of fever, chills, anorexia, nausea, malaise, fatigue and sleep disturbances. These symptoms generally begin four to eight hours after injection and persist for several hours. Although acetaminophen is usually sufficient therapy, it is suggested that the interferon dose be administered close to bedtime so that a patient can sleep through these side effects. The late side effects may be more serious and require reduction in dose or termination of therapy. These include systemic, hematologic, infectious, autoimmune and psychiatric complications. The most common reasons for cessation of therapy or reduction in dose appear to be psychiatric abnormalities (depression) or bone marrow suppression (leukopenia or thrombocytopenia). No drug interactions have been reported to date. The side effects listed above necessitate frequent and close monitoring of the patient especially at the beginning of treatment. As more becomes known of the natural history of hepatitis C and its response to interferon treatment, the above recommendations and prognosis are bound to change.

Not all HCV positive patients warrant treatment, which is expensive and not without side effects. In many cases a liver biopsy will help determine if liver tissue damage is occurring even though the LFTs may be only mildly elevated, and may differentiate ongoing infectivity and liver damage from past infection.

The decision whether or not to treat a HCV positive patient requires some consideration of what one hopes to achieve and the patient's determination to comply with treatment. Only about 50 percent of patients respond of which 25 to 30 percent may relapse following completion of the treatment course.

The Present Status

Various trials are underway worldwide to find a more effective treatment for chronic HCV infection. The ribavirin-interferon combination appears promising and this trial for which UAMS/VAMC in Little Rock is a center, should get underway in a few months.

Liver transplantation is the only option for treatment in end stage cirrhosis from HCV infection. In general, patients with end stage cirrhosis from hepatitis C do better than those with hepatitis B since clinically important reinfection with hepatitis C occurs much less commonly post transplantation than with hepatitis B.

At present there is no effective injectable antibody to hepatitis C to stop development of hepatitis following acute exposure in contrast to the hepatitis B immune

globulin for exposure to the hepatitis B virus.

A Vaccine against hepatitis C is being developed and should be available in the future. The potentially severe consequences of hepatitis C infection warrant careful evaluation of patients with this disease, remembering that absence of cirrhosis, genotype other than type 1a or 1b and HCV-RNA levels titer greater than ten thousand predict the most successful response.

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Health Care Access Foundation

As of July 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 12,813 medically indigent persons, received 24,345 applications and enrolled 47,301 persons. This program has 1,754 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Japan Passes Law to Allow Organ Transplants

According to a news release, after years of emotional debate on whether doctors can be entrusted with defining death, Japan's parliament passed a law recently to allow heart and other organ transplants in a country where they are virtually banned.

The law, which will take effect in a few weeks, will pave the way for the nation's first heart transplant in nearly 30 years. Japan's only heart transplant, in 1968, resulted in two criminal investigations against the chief surgeon and left the nation one of the few without such operations.

"This is a big step forward for transplants," Health Minister Junichiro Koizumi said in an interview after the voting.

Many remain wary of letting doctors define the moment of death - which is required when key organs are donated - and that stalled the bill, proposed three years ago. Cultural beliefs against cutting open corpses, for fear that may hurt the person after death, also have discouraged transplants. Up to now, hundreds of patients needing heart, lung and other organ transplants have had no choice but to go abroad for the lifesaving operations. Only a handful of patients have been able to afford the trip.

"I've been struggling for so many years to get this bill passed, I feel so relieved now," Hiroshi Takamori, a 34-year-old patient awaiting a heart-lung transplant, said in a telephone interview from the central city of Nagoya.

The main sticking point in the dispute has been Japan's strict definition of death. Under Japanese law, death comes at the moment when the heart stops beating. At that point, corneas and kidneys can still be used for transplants, but the heart, lung, liver and other organs deteriorate so much they can't be used.

The United States and other nations where organ transplants are routine recognize brain death, in which the brain ceases activity but the heart and other organs can be kept working with machines. Transplants are not illegal in Japan but those from brain-dead donors are almost never performed.

"Japanese thinking has finally come closer to in-

ternational standards," said Taro Nakayama, a doctor and lawmaker who proposed the initial bill.

Given the deeply divided public opinion on transplants, Nakayama's bill, which recognized brain death across the board, had to undergo major revisions to win the 181-62 approval in the upper house and the 323-144 lower house vote. Under the revised law, brain death will be recognized only for transplants. That means brain-dead people who don't agree to transplants would still be considered alive and continue to receive treatment. The law also specifies that transplants be allowed only from donors who have left written consent. Family members will also be able to overrule a doctor's diagnosis of brain death. Outside the parliament building, about 25 demonstrators, some in wheelchairs, chanted protests against the law.

"We are afraid the law will lead to some people's lives being valued over others," said Norio Koga, a 37-year-old blind acupuncturist and protester.

Surgeons across Japan have been setting up organ networks, readying medical facilities for transplants and passing out organ-donor cards. The nationwide medical association of surgeons has said a transplant from a brain-dead donor will be carried out before the year is over.

"The law is the first step toward the birth of a new kind of medicine that requires the participation of the entire society, not just doctors and patients," said Kikuo Nomoto, a doctor and transplant advocate. "It's epoch-making for Japanese medicine."

Health Care Delivery Systems Designs Trial Scrip

Healthcare Delivery Systems (HDS), Inc., a subsidiary of McKesson Corp. (NYSE: MCK), announced that it has been selected by six major pharmaceutical companies -- Astra Merck, Glaxo Wellcome, Hoechst Marion Roussel, Roche Laboratories, Solvay Pharmaceuticals and Zeneca Pharmaceuticals -- to design and administer a series of innovative Trial Script(SM) starter supply programs for selected products. Trial Script is an electronic, pharmacy-based enhancement to traditional pharmaceutical sampling in which a patient's starter supply of a drug, normally provided by the physician, is instead provided through a voucher affixed to a prescription signed by the physician and then dispensed by a community pharmacy selected by the patient.

"Forward-thinking pharmaceutical and biotechnology companies are quickly recognizing the distinct advantages of the Trial Script approach to providing no-cost starter supplies of their products to patients," said Patrick Connolly, HDS's president. "A primary benefit of Trial Script is that it allows manufacturers to

control the way samples are maintained, tracked and dispensed," continued Connoy.

"In addition, Trial Script generates product prescribing and usage data, makes it easier to sample in hospital settings or physician group practices, and ensures that patients receive the added value of product labeling information and Drug Utilization Review programs from their community pharmacy.

"The Trial Script program benefits manufacturers, patients and pharmacies alike while allowing physicians to continue to maintain goodwill through the provision of no-cost starter supplies of pharmaceutical products to their patients," said Connoy.

To initiate the Trial Script sampling process, the physician attaches a voucher (sticker) to a valid, signed prescription for a no-cost starter supply of a product, and the patient brings the script to a community pharmacy of choice to be filled. After filling the prescription for the starter supply, the pharmacist electronically transmits data on the Trial Script transaction to HDS, who then reimburses the pharmacist for the starter supply dispensed along with a professional fee. Over the past two years, HDS has worked with an increasing number of leading pharmaceutical and biotechnology companies to help them realize the benefits that are unique to the Trial Script program.

Healthcare Delivery Systems (HDS), Inc., is a subsidiary of San Francisco-based McKesson Corp. Through its U. S. Health Care business, its Canadian subsidiary, Medis Health and Pharmaceutical Services, and its minority interest in Mexico's Nadro, S.A., McKesson is the largest distributor of pharmaceuticals and health care products in North America. HDS designs and manages patient and product support systems, reimbursement programs, and marketing support services utilizing advanced health care information technology, helping to meet the needs of pharmaceutical and biotechnology manufacturers in successfully commercializing their products. - *Information provided by a Healthcare Delivery Systems news release.*

AMA/State Medical Society Litigation Center - Report of the Executive Committee Mission Statement

The American Medical Association/State Medical Society Litigation Center was founded to be an effective legal advocate in representing the interests of the medical profession in the courts by litigating cases of broad impact, and by serving as an information and advocacy clearinghouse for state medical societies, specialty societies, and related groups.

How the litigation Center Serves Physicians

As a result of profound shifts in the balance of power in the health care marketplace, physicians today more than ever face significant challenges to their ability to deliver high-quality, ethical medical care. To

provide physicians a more powerful, collective voice in shaping how medicine is practiced, the American Medical Association and 37 state medical societies (including Arkansas) formed the American Medical Association/State Medical Society Litigation Center (the "Litigation Center") to represent aggressively the interests of the medical profession in the courts.

The American Medical Association, partnered with the majority of state medical societies, can leverage legal issues in the courts in a way that individual physicians and medical societies cannot do alone. Through the Litigation Center, these partners have joined forces to help physicians counter the powerful challenges they face daily in practice.

The Litigation Center targets advocacy efforts that will broaden the scope of legal remedies available to physicians, aggressively protect physician autonomy in patient care decision-making, and respond to the challenges imposed by the marketplace, government regulation, and political and economic forces. Test-case litigation is targeted to the health care related legal issues that most significantly impact practicing physicians across the country.

Buttressing litigation efforts are public and media awareness campaigns on significant issues, undertaken, negotiations to avoid protracted and costly litigation, *amicus curiae* involvement in third party cases, and in-kind advocacy support (for example, research, expert witness identification, and publicity). The Litigation Center supports the patient and physician advocacy efforts of the American Medical Association, and is actively involved in physician education programs.

Litigation Center FY 1996-97 Advocacy Accomplishments

No-cause Deselection from Managed Care Panels: The Litigation Center continues to challenge no-cause physician terminations by managed care organizations through support of two lawsuits which will broaden the scope of remedies available to physicians faced with deselection. The Center and the California Medical Association support plaintiffs *Martel v. Hill* (challenging no-cause deselection of approximately 300 physicians following a merger involving the physicians' IPA) and anticipate filing an *amicus curiae* brief in support of the *Martel* plaintiffs later this year. The Center and the Texas Medical Association also support plaintiffs in *Zamora v. Health Texas* (alleging that the no-cause termination of a physician based on treatment provided to patients with disabilities is a violation of physician-patient protections under the Americans with Disabilities Act). In *Zamora*, complaints have been filed with the Equal Employment Opportunity Commission, the Department of Justice and the District Court of Bexar County, Texas.

Medicaid Reimbursement Shortfalls in Coverage of "Dual

Eligibles": The Litigation Center is assisting its members seek appropriate solutions (through negotiation or litigation) of Medicaid shortfalls in reimbursement to providers who serve dually eligible patients, a population consisting mainly of poor elderly, who qualify for Medicaid coverage of their Medicare deductibles and copayments. The specific issues for each state to grapple with is whether and how to: 1) restore Medicaid reimbursement back to 100% of the applicable Medicare rates; and 2) recoup past-due reimbursement. All four appellate court decisions on this issue have ruled in favor of providers. Currently, the Litigation Center is assisting 18 states assess appropriate resolution of this issue with their respective Medicaid agencies.

Challenge to ERISA Preemption of Managed Care Negligence: The Litigation Center, along with the Pennsylvania Medical Society and the AMA/Specialty Society Medical Liability Project, filed an *amicus curiae* brief in the case of *Pappas v. Asbel* (Pennsylvania Supreme Court) challenging ERISA preemption of negligence caused by the interference of managed care utilization protocols in the delivery of necessary medical care. The case involved a delay in treating a patient with a neurological emergency, occasioned by the managed care organization's cost-cutting protocols, ultimately resulting in the patient becoming a permanent quadriplegic. *Amici* argued that ERISA does not preempt state laws applicable to ordinary negligence.

Recoupment Of Medicare Overpayments To Physicians: The Litigation Center is working with the North Carolina Medical Society and the American Urological Association to challenge inappropriate recoupment by the Health Care Financing Administration of Medicare overpayments assessed against North Carolina physicians. Resolution of this issue is being carried out through a consolidated appeal. The Litigation Center is prepared to file suit to prevent collection efforts by HCFA.

Silent PPO Operations: The Litigation Center continues to educate the provider and payor communities regarding the inappropriate practice by certain third party payors of accessing discounts of indemnity insurance claims through silent brokers. The Litigation Center has identified organizations operating as silent PPOs, is assisting providers investigate silent PPO activity, and is presently working with several potential plaintiffs harmed by these practices who are considering litigating the issue.

Priority of Issues for Litigation

The Litigation Center is committed to a broad-based approach in establishing its litigation priorities and emphasizes involvement in those advocacy initiatives that impact the practice of medicine nationally. Consistent with this commitment, the Executive Committee annually solicits its member state medical societies

to identify the legal issues that form the foremost concerns of their physician members. Together, the Executive Committee and member representatives establish a priority for action. Cases are then developed or joined in those specific areas.

The Executive Committee recognizes that the relative priority of emerging legal issues will change in response to developments taking place in the health care market. Accordingly, the Executive Committee will review the Litigation Center's priorities issues agenda to ensure that advocacy efforts continually address the highest priority issues. Their success in identifying what are key legal issues will depend in large part on input provided by the member state medical societies. The Executive Committee and Litigation Center staff will actively seek such input on an ongoing basis.

In addition to litigation, the Litigation Center seeks to carry out its advocacy mission through negotiation, settlement, public education and awareness campaigns, media and public relations campaigns, and joint activity with other medical associations.

These efforts are likely to be centered around the following issues:

- *Managed care abuses (deselection, billing issues, negligent denials of care)
- *ERISA preemption
- *Hold harmless clauses/provider liability
- *Utilization review standards (qualifications of reviewers)
- *Patient records confidentiality
- *Fraud and abuse
- *Medicare/Medicaid reimbursement
- *Antitrust
- *Medical ethics and professionalism
- *Public health
- *Silent PPO operations
- *Americans with Disabilities Act enforcement
- *Professional liability

Case Selection Criteria

The founding member state medical societies charged the Executive Committee with developing criteria for determining which cases will be selected for Litigation Center involvement. The Executive Committee will assess the appropriateness of the issue, plaintiff, defendant and jurisdiction applicable to each prospective case, and will make a determination of case selection by considering the following additional factors:

- *Whether the legal issues presented in a proposed case extend or clarify the case law on a matter of interest to physicians generally.
- *The precedential value of the case (i.e., level of court, jurisdiction, and nature of legal proceeding).
- *The scope of applicability of the case determination (i.e., state, regional, national or specialty-specific matter).
- *The type and level of assistance being requested.
- *The likely chances of succeeding on the merits.
- *The allocation of Litigation Center resources required

by the proposed case.

*The comparative value of selecting a particular case as against other pending and likely litigation needs.

*The extent of non-financial costs (e.g., whether litigation makes political and other options less feasible).

*Whether options other than litigation are available, are viable, and whether such options have been pursued.

For more information about the Litigation Center write to: AMA/State Medical Society Litigation Center, 515 North State Street, 14th Floor, Chicago, Illinois, 60610; or call, (312) 464-5490.

1997 Declared Ulcer Disease Education Awareness Year

Gov. Huckabee recently signed a proclamation declaring 1997 ulcer disease education awareness year in Arkansas. The proclamation stated the following.

Whereas, for many years stress and diet were believed to be the cause of ulcer disease. After extensive research into ulcer disease the primary cause was found to be the bacterium *Helicobacter pylori*; and

Whereas, ulcers caused by *H. Pylori* cost Arkansas' government, citizens and businesses significant amounts of money in direct medical costs as well as absenteeism and lost productivity; and

Whereas, there is a need to educate and provide information to all citizens of Arkansas on these important medical facts related to the treatment and cure of ulcer disease; and

Whereas, the State of Arkansas is pleased to join with employers, healthcare providers and organizations throughout the state who are involved in educational efforts concerning this major advancement in the treatment of ulcer disease. Arkansas citizens who are affected by ulcer disease are encouraged to discuss these new treatment modalities to cure ulcer disease with their health care provider;

Now, therefore, I, Mike Huckabee, acting under the authority vested in me as Governor of the State of Arkansas, do hereby proclaim 1997 as Ulcer Disease Education Awareness Year in the State of Arkansas.

Disciplinary Action Bulletin - Arkansas State Board of Nursing

The nurses listed in this bulletin have had disciplinary action taken against their licenses. When a nurse's license to practice nursing is revoked or suspended, return of the license to the Board Office is requested; however, licenses may not be returned. Also, individuals placed on probation must continue to meet conditions for the retention, or future reinstatement, of their licenses. When hiring such an individual the Board Office should be contacted. Therefore, the Board routinely suggests this list be shared with the appropriate supervisory personnel and recruiters in your organization. At the completion of the disciplinary period, the nurse applies for reinstatement. Reinstatement is contingent upon meeting the condi-

tions set forth by the Board.

In accordance with the Arkansas Nurse Practice Act and the Arkansas Administrative Procedure Act, the Arkansas State Board of Nursing took the following action after individual hearings:

DISCIPLINARY: July 9, 1997

*Michael Nathan Rice, LPN Applicant (Lawton, OK) Licensure denied

*Cynthia Irene Tuck Ash, RN #41950 (Fayetteville, AR) Probation - 3 years, civil penalty - \$2,500

*Tana Lee Waugh Murphy, RN #37228 (Little Rock, AR) Suspension - 2 years, civil penalty - \$500

*Wendy Renee James Gardner, LPN #25660 (Jonesboro, AR) Probation - 2 years, civil penalty - \$500

*Mary Elizabeth Thomas Allbright, RN #40747 (another jurisdiction) Suspension - 2 years, civil penalty - \$500

*Chrystal Deanne Pollard Sturtz, RN #49495, LPN #31863 (Salem) Suspension - 2 years, civil penalty - \$2,500

DISCIPLINARY: July 10, 1997

*Deborah Lynn Ward Davis, LPN #21055 (Paragould, AR) Suspension - 2 years, civil penalty - \$1,150

*Gayle Ann Adams Holmes, RN #27776 (Little Rock, AR) Probation - 2 years, civil penalty - \$2,150

*Paula Jean Bruton Nolte, RN #51650 (Little Rock, AR) Suspension - 2 years, civil penalty - \$1,240

OFF PROBATION:

*Edward Bryant Owen, RN #40426 (Little Rock) 5/15/97

*Michael D. Aylett, RN #37777 (Little Rock) 5/30/97

REINSTATEMENT:

*Deborah Fay Tyler, LPN #17094 (Little Rock) 5/16/97

*Willie Belle Jackson Pinegar, RN #30547 (Cabot) 7/8/97

VOLUNTARY SURRENDER:

*Nila Kay Patterson Oliphant Isreal Mays Coones Totty Jones, RN #19090 (Hot Springs) 5/15/97

*Christina Gaye Rushing Webb, LPN #28297 (Alexander) 7/10/97

LETTER OF REPRIMAND:

*Sarah Rene Humbarb Wilkinson, LPN #33290 (Traskwood) 6/19/97

*Carol Land Earls, LPN #26589 (Hickory Ridge) 6/19/97

*Kimberly Kay Johnston Pike, RN #31579, RNP #1058 (Clinton) 6/19/97

*Linda Ann Neel Hutchison, RN #14751 (Paragould) 6/19/97

Tommie Ann Story Harrison, LPN #6866 (Benton) 6/19/97

*Lesa Gay Light Gosha, RN #40048 (Hoxie) 6/19/97

*Sylvia Sauerbrunn Hagood, RN #10961 (Little Rock) 6/19/97

*Corliss Leigh Dickerson, RN #12880 (Pine Bluff) 6/19/97

*Tammy Laverne Mosby Heathcock, RN #41022 (Charleston) 6/19/97

*Manie Caroline Womack Anderson, RN #28877 (El Dorado) 6/19/97

AMS Newsmakers

Dr. Laura Moore-Farrell of Fort Smith has been appointed to the National Mammography Quality Assurance Advisory Committee of the FDA. The committee advises the Secretary of Health and the commissioner of Food and Drugs regarding such issues as developing appropriate quality standards and regulations for mammography facilities; developing procedures for monitoring compliance with standards; determining whether there exists a shortage of mammography facilities in rural and health professional shortage areas; and establishing a mechanism to investigate consumer complaints.



Dr. Laura Moore-Farrell

Dr. Sandra B. Nichols of Little Rock was recently elected to the Board of Directors of Mercantile Bank of Arkansas. The bank's CEO said those elected to the board demonstrate to all their fellow Arkansans how hard work and dedication can bring resounding success.



Dr. Sandra B. Nichols

Dr. Hampton Roy of Little Rock has been named the first recipient of the Dis-

tinguished Alumnus Award by the Department of Ophthalmology at the University of Tennessee at Memphis. The award is presented in appreciation of outstanding service to ophthalmology.

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. Recipients are as follows: For the month of June - Robert Lyon Berry, Little Rock; Robert Dubose Dickins, Little Rock; Curtis Don Greenway, Little Rock; Byrne Robert Marshall, Little Rock; James Zachary Mason, Little Rock; Annette Meador, Scott; and Vern A. Shotts, Paragould.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:

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Journal Editor

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Contact Anita Straw at (501) 570-2271.

Let Us Hear From You!

**You can now E-mail AMS
at the following addresses:**

Main address: ams@arkmed.org
Ken LaMastus: kenL@arkmed.org
Lynn Zeno: zeno@arkmed.org
David Wroten: david1@arkmed.org
Kay Waldo: kayw1@arkmed.org



SPECIAL NOTICE

***You are reading
an award-winning journal!***

That's right, the Arkansas Medical Society has been awarded the Excellence in Communications Award by the Arkansas Society of Association Executives.

The award was given in recognition of *The Journal of the Arkansas Medical Society* and the Arkansas Medical Society's communications efforts in promoting the 1997 Annual Session.

Congratulations, AMS Staff!

Special thanks to *The Journal's* Editorial Board, Contributing Authors, The Ovid Bell Press, Inc., and The Peerless Group of Graphic Services.

A Viable Option for Community Hospitals: *The El Dorado Experience*

Larkin M. Wilson, M.D.*

We did it! Responding to economic pressures in the nation's medical environment, the nonprofit Medical Center of South Arkansas entered a partnership with for-profit Columbia-HCA one year ago. Amidst mounting negative press and unfounded fears and anxiety about the growth of for-profit hospitals, we did it. This is our story: the problems we saw on the horizon; the solution we proposed; and the success we have experienced.

Background: the problem

In 1965 Congress enacted the Medicare Entitlement Act in spite of predictions by the medical profession of an inflationary cost spiral in medical care. Over the past decade, news items have redundantly reported the increase in per capita spending in health care and its increasing percentage of GNP. In the previous two decades and especially during the debate over the Clinton health care reform, concerns about health care in the United States have revolved around the need to control inflation and to expand access for uninsured groups. Critics have decried the failure of our "non-system" to provide efficient, high quality, low cost health care. Providers have expressed disappointment at their inability to expand medical coverage or build health care safety nets because of high costs. Government's multitude of efforts to control costs and expand coverage have failed.

Our solution

We have, however, seen dramatic changes over the past several years - none driven by government, academic medical centers, the press, or doctors and hospitals. Instead the revolution has been - and continues to be - driven by employers and employees in response to corporate costs and individual payroll deductions. Today, efforts such as the affiliation and partnership of non-profit and for-profit hospitals and health plans are succeeding in creating efficient, high quality systems of care for tomorrow's world.

In 1994 the Medical Center of South Arkansas' Board of Directors began a search for a partner. After several strategic planning sessions, the board determined that a strong equity partner would be most advantageous for our non-profit hospital. With financial advisors and legal counsel we considered our options and began negotiations. Property appraisals and operation valuations were obtained from outside consultants. The board authorized a proposed letter of intent with Columbia-HCA in August 1995; signed the letter in October 1995; and during fall 1995 informed the community, medical staff, hospital personnel, Chamber of Commerce Board of Directors, and Union County Quorum Court of the hospital's intentions.

On February 27, 1996, the hospital formalized contribution and operating agreements for a limited partnership. Ten million dollars in outstanding bond issues were retired, and Columbia purchased a 50% interest in the MCSA hospital operations from the MCSA Foundation. The MCSA Foundation became the SHARE Foundation with 50% interest in the hospital and supermajority board control over important issues such as the administrator's position, budget approval, discontinuation of medical services, maintenance of the Emergency Room, and indigent care. Four of the ten board members are staff physicians, with the Chairperson appointed by the Foundation.

We contracted Columbia-HCA as manager and implemented its procedures and policies. Our employees lost nothing as a result. Administrative personnel have not changed. Employee benefits are equivalent to those in prior contracts with the added option to purchase Columbia stock at a discounted price. The medical staff, Nursing Service, and Quality Assurance Department adopted new case management with a new outcomes monitoring program.

Benefits of the Partnership

Our community hospital has benefited dramatically from this partnership. Increased management efficiency and cost savings are providing funds to improve our facilities. We are consolidating services. With a \$40 million annual budget, our first year's savings in

* Dr. Wilson is Chairman of the Medical Center of South Arkansas and practices internal medicine in El Dorado.

supply cost alone is over \$1 million. The partnership has committed over \$2 million to capital improvements, we have saved \$250 thousand on equipment purchasing contracts.

Our hospital is now debt-free; we have a cash reserve to develop new programs. We have recruited our first pulmonologist and neonatologist, and we have plans for a Neonatal ICU. We are budgeting to bring neurosurgery to South Arkansas. Through case management, we have shortened the length of stay and improved our quality control with a significant reduction in hospital and post-operative infections. We are actively working on architectural and construction plans for the new Area Health Education Center, and we opened a new Outpatient/Inpatient Geriatric-Psychiatry Service in January. We expanded our Rehabilitation Unit by adding a new physiatrist. The current nursing skill mix (RN as a percentage of direct care-givers) is 50%, higher than in previous years. Our first year's annual earnings have increased 48%. Most important, our management's mission statement is focused on providing compassionate, high quality care to our patients in a cost-effective manner.

Benefits of the SHARE Foundation

The citizens of El Dorado and South Arkansas have also seen the benefits of the formation of the SHARE Foundation, a non-profit public benefit corporation funded from the part interest purchase by Columbia. The successor to the Medical Center of South Arkansas Foundation, SHARE - an acronym for Service, Health, Art, Research, and Education - has become one of the largest fiscal entities in our community. In the transaction, it acquired a \$2 million office building and a major art collection. It currently has \$42 million in assets, a portion of which represents one-half ownership interest in the MCSA-Columbia hospital operation, allowing the community to share in future earnings.

During the first year SHARE Foundation has strengthened its outreach and mission in the community. Additional staff for the Community Hospice, a service of SHARE, now provide terminal care for a growing census of patients at an important time in their lives. The Interfaith Health Clinic is another SHARE Foundation agency, one bringing primary medical care to the working uninsured of Union County. The Foundation supports a Chaplaincy Service for the hospital and the Community Hospice. SHARE both helped fund and participated in the Union County Needs Assessment; the results will help focus future responses to unmet needs in the community. The Foundation has initiated education programs in Union County high schools and the community college as well as awarded nursing scholarships. SHARE has designated funds to support the Area Health Education Center. The future looks good. Having success-

fully completed the administration organization and contractual arrangements for its formation, the Foundation plans an active second year in 1997 with goals and missions to continue to serve our community.

Our Evaluation of our First Year

We have found that any disadvantages in a for-profit partnership are far outweighed by the advantages and the important improvements in benefits to the local community. Such progress would have been impossible for a stand-alone, non-profit institution. In addition, the hospital's property and local taxes provide added resources for our community. El Dorado and South Arkansas now have a well-endowed public charitable foundation. Our community hospital - legally liable for its actions and not subsidized by taxpayers - continues to be dedicated to high quality patient care. MCSA-Columbia and the SHARE Foundation are ready to serve our community as we go into the 21st century.

Tired of managed care?

Opportunity for general practice physician in Northwest Arkansas. This is a non-profit clinic looking for a full time physician. We have a state of the art clinic which is fully endowed by the Harvey and Bernice Jones Foundation with six exam rooms, two eye lanes and four dental operatories. We currently have two dentists on staff and are using volunteer physicians to see our medical patients. Our need for medical care has outgrown the volunteer staff so we are now looking for full time coverage. This is a ministry of the Episcopal Church but is interfaith in its mission. This is an office based practice without evenings or weekends. A hospital practice could be maintained if desirable.

Contact Sam Yates at 501-751-7417.

AMS Directories Available

The 1997 Arkansas Medical Society Membership Directories are now available. **All physician-members should soon receive one copy through the mail at no charge.** To order extra copies, or if you are not an AMS member and would like your own copy of the 1997 AMS Membership Directory, send a check or money order made payable to AMS in the amount of your purchase to: AMS, 1997 Membership Directory, P.O. Box 55088, Little Rock, AR 72215-5088. Be sure to include the name and address of who and where to mail your directory. The directories are \$50 each. With a purchase of 2 to 10, \$45 each; 11 or more, \$35 each.

Personal Watercraft-Related Injuries in Arkansas: 1994-1996

Chester S. Jones, Ph.D.*

Introduction

Every summer, families and children travel to Arkansas waterways to participate in recreational activities. One increasingly popular water activity is riding and operating personal watercraft (PWC). When PWC were first produced in the 1970's, they were one seat water vessels with 40 horsepower engines. Today, many PWC manufacturers' are producing vessels with 3 seats, horsepower over 120-135, that reach top speeds of 65-70 miles per hour. These PWCs generally cost \$4,000 to \$8,000. As one PWC dealer stated at a Kansas City Boating Show "you would have to spend at least \$35,000 to \$40,000 for a boat to go that fast. Personal watercraft is a cheap way to go fast."¹ The fact remains that PWC are getting bigger and faster. But are they safe?

To counter the possible consequences of increased use of PWCs, many states have passed regulations governing PWC use. In the 1997 Arkansas legislative session, three of four bills related to PWC use were passed. These bills included mandatory regulations for 1) blood alcohol concentration test on operators involved in fatal boating wrecks; 2) a boating education and training program; and, 3) liability insurance for watercraft over 50 horsepower. A bill that would have raised the legal operator age from 10 to 14 was defeated. This bill would have passed if other revisions had not been attached.

But are these regulations enough? The primary concern is for the safety of individuals on waterways. However, trauma from PWC use does occur and indications are that injuries and fatalities are increasing with it's popularity. Injuries from PWC-related crashes in the United States have more than doubled from 1990-1994.² Injuries to children operators have increased by 50% during the same time period. These percentages do not include the passengers or riders of the PWC. Research on PWC-related injuries is minimal and dated.³⁻⁶ This may be due to 1) the emergence of the PWC as a popular and legitimate watercraft; and, 2) the lack of detailed information and surveillance of incidents involving PWCs. The purpose of this study is to determine if PWC use is a public health concern in Arkansas, the availability and accuracy of data on wrecks, and provide suggestions for improved surveillance and injury prevention strategies.

Methods: To document and describe the use and injuries associated with PWCs in the state of Arkansas,

boating accident reports provided by the Arkansas State Game and Fish Commission from 1994 through July of 1996 were collected. By state law, all boating accidents involving a fatality or \$100.00 or more in personal property damage must be reported to the Arkansas Game and Fish Commission. The accident reports are collected by boating accident investigators certified through the United States Coast Guard. Prior to 1994, the reporting of boating accidents was the responsibility of the individuals involved in the wreck. Trained boating investigators were not used at this time. Therefore researchers did not compile reports collected before 1994 due to the possibilities of inconsistent and non reliable data.

Results: Over a thirty-month period, Arkansas waterways recorded 82 wrecks, 4 deaths, and 57 injuries involving PWC. In most cases the operator of the PWC was responsible for the collision. The mean age of the operator of the PWC was 24 and typically between 15-29 years of age (75%), male (75%), Caucasian (100%), an Arkansas resident (75%), had less than 20 hours of experience operating a PWC (55%), and had not taken a boating education class (94%). Almost two thirds (63%) of the operators were owners of the vessels involved in the crash. The other third either rented or leased the PWC. A majority of the passengers (non-operators) were under the age of 18 (70%).

Almost half of the operators (46%) and over half of the passengers (59%) were ejected from the PWC. Most riders wore a PFD during operation (90%), was the required type (96%), and were used by survivors of the crashed vessel (60%). Most injuries were unspecified, but fractures and lacerations involving the lower extremity were the most common (Table 1 and 2). About half of injuries occurred to children. One 18 year old died from drowning after being thrown from the PWC.

The most common bodies of water associated with PWC collisions were, in order from highest to lowest, Beaver lake (20), Greers Ferry Lake (20), Lake Hamilton (18), Lake Norfolk (15), Lake Ouachita (13), Degray Lake (11), and Lake Dardanelle (8). Most often the wrecks occurred on the weekend (65%), between the hours of 2 pm and 6 pm (57%). The months typical for PWC wrecks are May through August.

At the time of the incident, most operators were either maneuvering (42%) or cruising (36%) and the vessel was either going straight (38%), turning left (18%) or turning right (16%). In a majority of the accidents, two vessels were involved (79%). Most accidents were

* Chester S. Jones, Ph.D. is Assistant Professor of Health Sciences at the University of Arkansas in Fayetteville.

collisions between two moving vessels (79%). Collisions between two PWCs accounted for 35 wrecks (43%).

The primary causes of the accident, as determined by the boating accident investigator, were inexperience (35%), inattention (33%), and reckless and negligent operation (15%). Alcohol and excessive speed were cited as primary causes in 4 cases each. One finding of interest was that only 1 of the 82 incidents was caused by a factor other than human or behaviorally controlled, and that was rough waters.

Discussion: This study has many limitations. The reliability of the data is questioned due to the dependence on the boating accident investigator to record accurate and detailed information. Information to determine injury type, severity, and etiology is not required on the investigation form and therefore is minimal and not consistent. Additionally, no data currently exist that could provide information on the number of registered PWC in Arkansas. This would assist in determining mortality, incidence, prevalence, and risk calculations for PWC.

However, the limited results did indicate that PWCs are involved in injury-related crashes and that children and young adults are a priority population for injury prevention strategies. As PWC increase in use, size, speed, and children operators, several strategies for prevention of injuries should be considered. Priority areas for possible countermeasures based on the findings of the study lead to 1) education, 2) legislation or policy, and 3) PWC manufacturing/design changes.

A large percentage of wrecks were contributed to inexperience and inattention. Only 6% had received any boating education. In the US, only 16 states required boating education,⁷ and boating education courses do not specifically target PWC use. Rather they are generic courses covering all boat type use. The PWC is much different in handling, maneuvering, and other characteristics than other boats. Mandatory PWC education and training programs for beginning operators could potentially increase experience and appreciation for the responsibilities included in operating a motorboat.

Another countermeasure suggests that legislation be considered limiting PWC operation. As of current, 43 states have age restrictions.⁷ These age limits vary by state anywhere from age 10 to 16 years of age. Another six states require licensure for operation. Other regulations target speeding, restrictions on areas of PWC use, and boating environment policies. With regard to personal protection devices, most states require PFD use. However, no states currently have laws pertaining to helmet use. Due to the risk for head injury, helmets during PWC use should be considered as a strategy for decreasing serious injury and trauma.

Another priority for interventions should involve the PWC manufacturers. As with other products that have potential injurious outcomes (i.e. alcohol, tobacco, seat belts, air bags) PWC manufacturers must take some responsibility for developing and producing safe vessels. In general, PWCs are considered more safe than

Table 1:

Injuries by Type	
Injury	No. (%)
Laceration	6 (11%)
Fracture	7 (13%)
Contusion	2 (4%)
Sprain	1 (2%)
Separation	1 (2%)
Drowning	1 (2%)
Abrasions	1 (2%)
Other	1 (2%)
Unspecified	37 (65%)
Total	57 (100%)

Table 2:

Injuries by Body Region	
Body Region	No. (%)
Head and Neck	8 (14%)
Upper Extremity	4 (7%)
Lower Extremity	12 (21%)
Back and Trunk	2 (3.5%)
Unspecified	31 (54%)
Total	57 (100%)

other motorboats because of their propeller-driven design that decreases the risk for limb injury from pull of the intake valve. But this is only one example of possible engineering design changes that are possible to increase safety. Many of the wrecks that occurred on Arkansas waterways were due to individual behaviors. Through design changes and remanufacturing that target the potential causes of PWC wrecks, behavioral and human errors could be limited and provide another strategy toward safe PWCs. Therefore enacting policies that limit age of PWC operation, mandating education and possibly licensure, and manufacturing design changes are some possible countermeasures to consider to decrease PWC-related trauma on Arkansas waterways.

Injuries from PWC seem to be increasing and current injury prevention measures are minimal. Health care professionals and researchers could assist by 1) becoming informed of the potential consequences of misuse of PWC; 2) suggesting the need for better surveillance on the etiology of PWC injury events; 3) advocating for passage of age restriction, education, and safe boating environment legislation concerning PWC use; and, 4) campaigning manufacturers to produce safe vessels and invest in the development and design of PWC that ensure safety as well as fun. The aforementioned countermeasures try to target the individual through education, the community through enforcement and legislation, and the manufacturers through better technology and engineering. It is a multidirectional approach for providing a safe boating environment.

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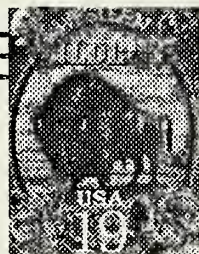
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Dermatologic Phenomenon: *Clinically Useful Para-diagnostic Pearls for Everyday Practice*

Patrick M. Hatfield, M.D.*

Patrick R. Carrington, M.D.**

Clinical dermatology is laden with numerous "pare-diagnostic" tests and pearls used at the bedside. These enable the knowledgeable clinician to enhance his or her diagnostic acumen, thereby focusing the differential diagnosis into a more appropriate and pertinent index. Unfortunately, these dermatologic phenomenon are scattered throughout dermatologic textbooks in a random fashion, making their acquisition and use a laborious task, especially for the nondermatologist. As many of these were originally defined by dermatologic morphologists of the "classic" genera, we acknowledge that they should not supplant more modern and technologically superior tests, but should be used to define or prioritize their necessity and interpretation. Indeed, in this era of "managed care," we offer these as an illumination of one of the many ways our "medical-ancestors" managed their patients: based upon exemplary knowledge as well as the art of dermatology and medicine.

There are several "poor man's" tests that can aid in diagnosing various skin conditions, often by assisting to elicit these signs and phenomena. Diascopy is a simple procedure whereby two glass slides or a hand magnifier is pressed firmly over a cutaneous lesion. With firm constant pressure the underlying blood vessels are emptied, the skin is blanched and the skin pathology is observed without being obscured by the vasculature. Diascopy is a useful test to help differentiate a venous lake from a malignant melanoma or blue nevus. A venous lake will blanch and empty with diascopy whereas a melanoma or blue nevus will not. By pressing a glass slide at the edge of a patch of "depigmented" skin, a nevus anemicus can be differentiated from a patch of vitiligo or nevus depigmentosus. Nevus anemicus is a localized vascular disorder where there is a focal increase in blood vessel sensitivity to catecholamines resulting in con-

striction of the blood vessels. Lesions are off-white, well-demarcated patches with irregular margins. Diascopy at the edge of the lesion results in blanching of the uninvolved skin so the lesion becomes imperceptible. Nevus depigmentosus and vitiligo are true pigmentary disorders so diascopy at the edge of the hypopigmented patch does not lead to any color change between involved and uninvolved skin. This simple technique is also useful in determining if a red papule or macule is due to erythema from capillary dilation or is purpura from extravasated red blood cells. Erythema will blanch, whereas purpura will not. Pressing a glass slide against the radish-brown lesion of lupus vulgaris (cutaneous tuberculosis), the infiltrative lesion turns a yellowish-brown or "apple-jelly" color. This "apple-jelly" color can also be appreciated when diascopy is applied to a granulomatous infiltrate of cutaneous sarcoidosis.

Magnification utilizing a 2x - 7x hand held magnifying glass can aid in visualizing the subtleties and characteristic morphological details of certain dermatological disorders. This is very useful in appreciating the Wickham's striae in lichen planus, follicular plugging associated with discoid lupus erythematosus, translucence and telangiectasias of basal cell carcinomas, linear burrows of a scabies mite, and color changes associated with a malignant melanoma.

Different lighting techniques can assist in the appreciation of subtle morphological details of primary lesions. Oblique lighting in a darkened room helps in detecting slight degrees of elevation or depression. This lighting technique can accentuate the rippling seen in Shulman's Syndrome (eosinophilic fasciitis) or the *peau d' orange* appearance frequently associated with an underlying breast carcinoma. Subdued lighting can enhance the margin between hypopigmented or hyperpigmented lesions and normal skin.

The Wood's lamp or "black light" is an ultraviolet long-wave length (360 nm) light that is useful in diagnosing various hair and skin disorders along with certain types of porphyrias. Wood's lamp examination is

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useful in the detection of certain ectothrix tinea capitis infections by their green to yellow fluorescence. A diagnosis of erythrasma can be cinched by the coral-red fluorescence of the colonies of *C. minutissimum* in the intertriginous areas. A good screening test for certain types of porphyria, e.g., porphyria cutanea tarda, is by Wood's lamp examination of acidified urine which will fluoresce a pinkish-red color when positive rather than the milky-yellow color of normal urine. A Wood's lamp is very useful when evaluating hypopigmented and hyperpigmented lesions. The off-white patches seen in tuberous sclerosis and tinea versicolor are hypomelanotic and are accentuated by the Wood's lamp. Vitiligo and chemical leukoderma are amelanotic lesions and under the Woods lamp they appear milky white and much lighter than hypomelanotic lesions. Likewise, a hypermelanotic lesions such as a freckle or melasma, will appear darker under the Wood's lamp. This simple technique may be used to help localize where the melanin is deposited in the hyperpigmented skin. With melasma for example, the melanin deposition can be epidermal, dermal or mixed. When predominantly epidermal, the hyperpigmented patches are accentuated, whereas, when the melanin is deposited in the deeper dermal layers it is not enhanced with the Wood's lamp. This has clinical significance because the epidermal variety responds much more favorably to standard treatments than the dermal or mixed variants.

These quick and inexpensive "bedside tests" can aid in the diagnosis of many dermatological conditions. However, nothing can replace good clinical observation and knowledge of the natural history of a specific disease. Being cognizant of the many signs and phenomena encountered in various disease states better prepares the physician to make a correct clinical diagnosis and render appropriate therapy. In dermatology, astute visual inspection is mandatory for correct clinical diagnosis. A sign is something suggesting the presence of a fact, condition, quality, or objective evidence of a specific disease process. A phenomenon is any unusual, unaccountable, or remarkable sign or objective symptom. An awareness of the many signs and phenomena common to both dermatology and general medicine can enable all of us to become better clinicians.

Sir Jonathan Hutchinson (1828-1913) was a very prolific English surgeon and morphologist. To his credit, he has numerous observations named after him. Hutchinson's sign can be in reference to ophthalmic nerve zoster or the cutaneous spread of a subungual melanoma. Two thirds of patients with ophthalmic nerve zoster have involvement of the nasociliary branch, indicated by the presence of vesicles on the tip or lateral aspect of the nose. Zoster that involves

the nasociliary branch of the ophthalmic nerve is associated with a high incidence of potentially serious eye problems such as uveitis, keratitis, ocular muscle palsies, proptosis, scleritis and ulceration or even scarring of the eye lid. When the ciliary ganglion is involved an Argyll Robertson pupillary response may be elicited. An ominous sign of a subungual melanoma is the spread of pigment to the lateral and proximal nail folds, also referred to as Hutchinson's sign. Pigmentary changes in the nail folds are useful in differentiating a benign subungual hematoma from a deadly subungual melanoma. Hutchinson's triad includes bilateral neural deafness, keratitis and notched teeth seen in late congenital syphilis. Hutchinson's teeth are the widely spaced small upper central incisors that are pathognomonic for congenital syphilis. The teeth are peg shaped and notched in the center due to a defect in enamel production.

Koebner's phenomenon (figure 1) is one of the most classic dermatologic phenomenon. This is also known as the isomorphic response in that there is induction of the very same (iso-) form (-morphic) of the

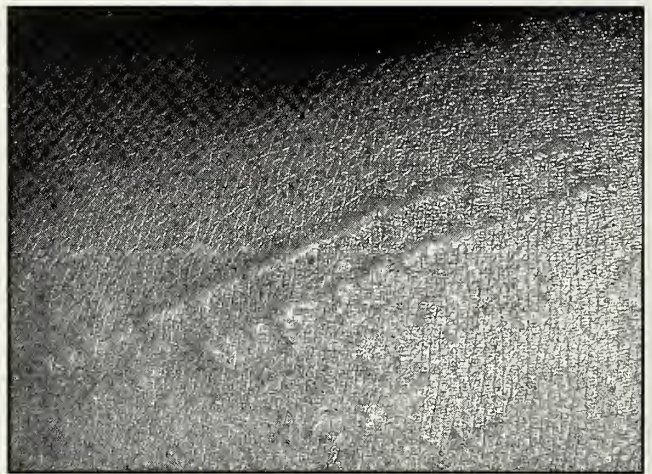


Figure 1: Koebner's phenomenon

primary disease. It details the development of primary lesions of certain dermatoses occurring in response to physical insult or trauma. In 1872 Koebner described a patient with a five year history of psoriasis who developed a new plaque in the precise spot where his horse had bitten him. Children scratching warts can develop a linear array of warts in sites of trauma. Other diseases commonly associated with the Koebner's phenomenon include sarcoidosis, lichen nitidus, lichen planus, pityriasis rubra pilaris, and molluscum contagiosum.

Psoriasis is a chronic papulosquamous disease associated with several classic signs. Auspitz's sign can be useful in differentiating psoriasis from other scaly skin disorders. When the silvery scale from a psoriatic

plaque is gently removed, pinpoint bleeding occurs and this is referred to as Auspitz's sign. In psoriasis, the skin overlying the dermal papillae is very thin and the capillaries are dilated. When the scale is removed the capillaries are easily damaged and pinpoint bleeding is observed. Woronoff's ring is an annular blanching of the erythematous skin at the border of a healing plaque of psoriasis. The ring does not redden with ultraviolet light exposure. Other common signs associated with psoriasis include nail changes. Nail pits, due to defective keratinization of the dorsal proximal nail fold, is not specific but is quite common in psoriasis. Oil spots are yellow macules seen beneath the nail plate. This morphological pattern is due the psoriatic process taking place within the nail bed.

The herald patch is a papulosquamous annular eruption most commonly occurring on the lower trunk as a harbinger to an upcoming generalized eruption of pityriasis rosea. This patch may be seen as much as two weeks preceding the development of the full-blown eruption, and may be confused with tinea corporis, psoriasis, tinea versicolor, contact dermatitis, or a drug rash. The typical patch is 2 - 5 cm, bright red, and exhibits a marginal collarette of scale.

Inflammation is a localized protective response of the body that is elicited by tissue injury. The response is designed to destroy, dilute or sequester both the injurious agent and the involved tissue. It is characterized by the cardinal signs of inflammation: dolor (pain), calor (heat), rubor (erythema), tumor (edema) and functio laesa (loss of function). When evaluating a patient for cellulitis or any type of inflammatory lesion observing these five cardinal signs can aid in the diagnosis.

A common peculiarity of chronic tinea pedis infection due to *Trichophyton rubrum* of the dry mocassin-type is a tendency of patients to have both feet involved in addition to one palm (tinea manuum). This is not associated with scratching of the feet by that particular hand as one would surmise, as most patients usually cannot relate that history. As such, two foot-one hand disease (figure 2) is almost *sine qua non* for chronic tinea infection, and must not be confused with an id reaction (dermatophytid) from an inflammatory tinea pedis.

Infectious eczematoid dermatitis is known by several names, including id, autosensitization dermatitis, and autoeczematization. This is an idiopathic condition related to the patient as a "sympathetic" dermatitis. For example, when there is a focus of a highly inflammatory eruption or dermatitis due to whatever cause (contact dermatitis, tinea, infection, etc.) there may be a "sympathetic" eruption occurring noncontiguously after the initial eruption presented, and not pathogenetically similar to the original eruption.

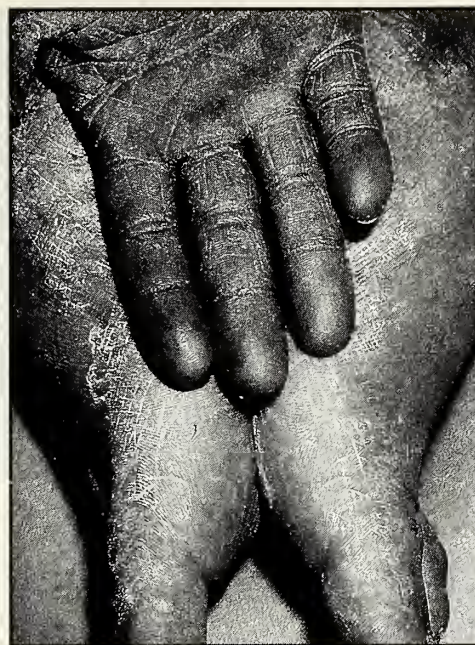


Figure 2: two foot-one hand disease

An illustration will bear this credence. A patient with a highly inflammatory tinea pedis infection due to *Trichophyton mentagrophytes* may actually present with an inflammatory, pruritic, dermatitic eruption of the palms. This is a noninfectious dermatitis, but is related immunologically to the initial insult to the feet. A child with a robust case of draining otitis media may present with an inflammatory, pruritic, dermatitic eruption of the auricular and peri-auricular area. The initial disease successfully treated will allow clearance of the id reaction, whether it represents a dermatophytid, a bacteria, or a contact dermatitis.

Dermatosis locus minoris resistentiae is a phenomenon more commonly seen these days due to harvesting of the saphenous vein for cardiac bypass surgery. In this phenomenon, areas of the skin subjected to prior trauma (surgery, burn, dermatitis, etc.) are often the first areas of the body to reflect a new insult or disease, such as asteatosis (winter itch), contact dermatitis or verruca infection. It is not uncommon to first visualize asteatosis of the skin on the legs of patients with a prior history cardiac bypass.

The triple response of Lewis is elicited when the skin is stroked with a blunt object. Due to the release of histamine and histamine-like substances a red line forms at the site of stroking; then neural events result in a flare that develops around the red line; lastly a wheel forms secondary to edema from increased vascular permeability. Darier's sign (figure 3) is useful in diagnosing mast cell disorders. The wheel produced after stroking the radish-brown macule is pathognomonic for mastocytosis (urticaria pigmentosa). The mild trauma produced by stroking the skin results in mast



Figure 3: Darier's sign

cell degranulation, release of histamine and then whealing. Darier's sign is devoid of the axonal flare seen in the triple response of Lewis. A Becker's nevus (congenital smooth muscle hamartoma) exhibits a pseudo-Darier's sign upon stroking. This hyperpigmented patch with hypertrichosis is usually found on the upper trunk and exhibits transient elevation after rubbing. Rubbing the skin causes smooth muscle contraction and elevation of the overlying skin. No treatment is necessary for this benign pigmented lesion.

Pathergy is defined as an abnormal response to an allergen. This reaction can be either a subnormal or excessive response. This differs from the isomorphic response in that the lesion generated is not the same as the primary dermatosis in question. Bechet's syndrome (oculo-oral-genital syndrome) is the quintessential disorder for exhibiting pathergy. This multi-system inflammatory disease consists of recurrent oral aphthous ulcers, and two of the following features: eye lesions, recurrent genital ulcers or skin lesions. Other clinical findings include neurological disorders, arthritis and thrombophlebitis. When 0.1 ml of normal saline is injected into the skin a pustule appears at the site within 24 hours and this is referred to as pathergy. Biopsy of the site typically shows a pustular vasculitis. Pathergy may also be seen in cutaneous Crohn's disease and pyoderma gangrenosum.

Raynaud's phenomenon occurs in the presence of an associated underlying disorder, i.e., collagen vascular diseases, drugs (beta-blockers, nicotine), arterial diseases, carpal-tunnel syndrome and diseases with abnormal blood proteins (cryoglobulinemia). Raynaud's disease on the other hand occurs without any identifiable underlying condition. The episodic attacks are produced by the intermittent constriction of small digital arterioles and arteries. The classic clinical findings are symmetrical pallor (white), progressing to cyanosis (blue), and followed by rubor (red) color changes. Either few or all fingers or toes may be involved leaving the patient with symptoms to be dis-



Figure 4: Fitzpatrick's sign

tinguished from carpal-tunnel syndrome, e.g., numbness, tingling, pain, and dysesthesias.

A dermatofibroma (DF) is a very common nodular skin lesion (fibroma) that frequently presents on the lower extremities. Women are more frequently affected than men. In evaluating these papular or nodular lesions Fitzpatrick's sign (figure 4) can be a useful test. When a DF is squeezed between the thumb and index finger it characteristically produces a depression, or dimpling in the center of the lesion which is referred to as Fitzpatrick's sign.

Atopic dermatitis usually denotes a chronic, pruritic, inflammatory skin disorder occurring in children. The disease is marked by erythema, oozing, crusting, excoriations and lichenification in the later phases. Atopy literally means "no-place-ness," "not in the right place" or "uncommon." The atopic diathesis often includes a personal or family history of hay fever, asthma, allergic rhinitis or dermatitis. Several clinical findings that are associated with atopic dermatitis include accentuation and hyperlinearity of the palmar creases, keratosis pilaris, Dennie-Morgan lines and Hertoghe's sign. Dennie-Morgan lines (figure 5) are exaggerated skin folds seen just below the lower eyelid of atopic patients. This fold is due to edema of the lower eyelids and is a feature of the atopic diathesis rather than a specific marker for atopic dermatitis. Hertoghe's sign is madarosis (loss of lateral eyebrow hair) in association with atopic dermatitis. However, madarosis is not specific for atopic dermatitis and is also seen in hypothyroidism, alopecia areata and leprosy. When aware of the various clinical signs associated with this common disorder a clinical diagnosis of atopic dermatitis is relatively easy.

The integument system can be a "window" into the overall health of an individual. There are many "outward signs" of "inward trouble." The sudden appearance of numerous enlarging, pruritic seborrheic keratoses has been associated with an internal malignancy and this association is referred to as the sign of

Leser-Trelat. The neoplasms are generally adenocarcinomas, usually of the stomach, however, squamous cell carcinoma of the lung, lymphoma and breast carcinoma have been reported. Sister Mary Joseph, a nurse in a Catholic hospital, noted the association between periumbilical nodules and an underlying carcinoma. This association is now referred to as a Sister Mary Joseph nodule. The periumbilical nodules usually represent a metastatic carcinoma from an underlying intra-abdominal tumor, most commonly stomach, colon or ovary. It is usually easier to detect the nodules by palpation rather than by visual inspection. They usually present as firm, indurated nodules that may or may not exhibit fissuring, ulceration, a vascular appearance or discharge. In up to 15% of cases, the Sister Mary Joseph nodule may be the initial presentation of the primary malignancy. Although malnutrition is rare in this country, fad diets and eating disorders such as anorexia nervosa can produce integumentary changes classically associated with malnourished conditions such as marasmus (protein-calorie malnutrition) and kwashiorkor (protein malnutrition). Cutaneous findings can include pallor of the skin, follicular hyperkeratosis, pigmentary changes and crazy paving or flaky paint dermatosis in which the skin shows a superficial desquamation that can progress to large areas of erosion. The hair can show the flag sign ("signe de la bandera") wherein hair growing during periods of inadequate nutrition is pale, alternating with darker bands that represent normal hair color during periods of improved nutrition. The flag sign can also be seen in patients undergoing certain forms of chemotherapy. Dermatomyositis is an inflammatory myositis associated with muscle weakness and various cutaneous changes. Some of the skin findings associated with this disorder include cuticular periungual telangiectasias, erythema, interstitial calcinosis and a periorbital heliotrope (violaceous) flush. Pathognomonic for dermatomyositis are Gottron's papules which are flat-topped violaceous papules located over the knuckles.

This article is by no means a comprehensive compilation of the many signs and phenomena encountered in the dermatology literature. However, it is the



Figure 5: Dennie-Morgan lines

hope of the authors that this general review will aid the primary care physician, house-officer, and medical student in diagnosing both cutaneous and systemic diseases. By being keenly aware of subtleties associated with the natural history of a disease process we can better prepare our minds to identify and describe signs and phenomena not yet appreciated. This will help our colleagues and future generations of health care workers provide better patient care.

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J. Kelley Avery, M.D.*

Case Report

A 62-year-old woman came to the emergency department shortly after midnight with severe right flank pain that radiated anteriorly and inferiorly into the area of the right groin. Her blood pressure was 180/110 mm Hg, she had tenderness to percussion over the right flank, and her urine showed a 2+ protein. On the basis of the typical history and physical findings, the urologist on call ordered a stat IVP, which showed a slight hydroureter on the right and what appeared to be a calculus in the region of the right ureterovesical (UV) junction.

Narcotics by injection gave some relief from her pain, and she was sent home, with instructions to see the urologist the following morning in his office. She kept the appointment, and on cystoscopy a calculus was found at the UV junction. A conservative approach was tried in hopes that the stone would pass without intervention, but five days later the stone had not moved, and the patient was experiencing intermittent severe right flank pain. She was therefore scheduled to have a cystoscopy and attempted extraction of the calculus as an outpatient.

The anesthesiologist requested by the urologist was scheduled to give the anesthesia, but he was occupied with another case at the time and another anesthesiologist was assigned to manage her case. She was assessed by the anesthesiologist in the holding area, who noted the history of hypertension and recorded the blood pressure as 180/100 mm Hg. A history of allergy to chloramphenicol was noted, along with loose teeth, poor oral hygiene, and exogenous obesity. Her weight was 178 lb that morning and her estimated height was about 60 in. No notation was made about her neck, nor was there any history of previous problems with anesthesia. On the basis of these findings, an ASA classification of 2 was assigned.

Anesthesia was started and the patient was intubated at about 11:50 AM. Almost immediately her blood pressure began to rise to 220/100, 248/114, and 230/105 mm Hg. Bradycardia occurred within a minute or two. The code team was called to the operating room five

minutes after the intubation, arriving five minutes later. The anesthesiologist checked the endotracheal (ET) tube, and hearing breath sounds over both sides of the chest, concluded that the tube was in place. The first blood gas analysis was done 15 minutes into the procedure, and showed a PO_2 of 19, with severe acidosis. About 22 minutes into the case the patient was re-intubated and was given 100% O_2 by Ambue bag. Another 20 minutes elapsed before the PO_2 was recorded as above 60. Active CPR was begun approximately 15 minutes into the procedure and continued for 30 minutes before an adequate heart rate was obtained and the blood pressure was about 110/70 mm Hg.

She had sustained a devastating period of anoxia, which resulted in severe brain damage. After three days in the SICU, a bedside EEG reported no brain activity. She was declared brain dead, and all supportive measures stopped. She died a few minutes later. A lawsuit was filed charging both the urologist and the anesthesiologist with negligence in failing to identify esophageal intubation in a timely manner. The suit also requested punitive damages because the anesthesiologist left the room during resuscitation, leaving a "callous disregard for his patient's well-being."

Loss Prevention Comments

There is a risk to general anesthesia that is not proportional to the severity of the procedure to which the anesthesia is given. The devastating effects of esophageal intubation are well known, and we have had the ability to continuously monitor CO_2 for so long that it was more common than it is today.

This case occurred after such monitoring of CO_2 had become the standard of care, and had, in fact, resulted in a gradual reduction in the premiums for the anesthesiologist's professional liability insurance. In the examination of this case, it was found that CO_2 was not being monitored, and the ET tube was not equipped with the device that would have immediately warned the anesthesiologist of trouble. Investigation revealed that the device was defective and was being repaired.

Surely in the absence of such a monitoring device the physician could have been expected to more closely observe his patient and more quickly react to signs of trouble. Inflaming the surviving family's anger at the

* Dr. Avery is Chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Co., Brentwood, TN. This article appeared in the February 1995 issue of the Journal of the Tennessee Medical Association. It is reprinted here with permission.

caregivers was the impression that neither the urologist nor the anesthesiologist was actively involved in the effort to protect their patient either by the earlier recognition of trouble immediately after intubation or during CPR once the cause of the trouble had been discovered. There was testimony that the anesthesiologist left the room during CPR.

The anesthesiologist relied on the questionable observation of breath sounds on both sides of the chest to delay his attempts to re-intubate. It was not until about 20 minutes into the case that the patient was adequately oxygenated. There was also the significant obesity and a long history of hypertension that made the patient a less than ideal anesthesia risk.

The absence of the necessary monitoring device was evidence of system laxity, which contributed to the constellation of difficulties that contributed to this anesthesia death. Why was the monitoring device not functional? Why did not the physicians delay the case until appropriate monitoring was available? Questions related to these system problems went without satisfactory answers, and a very large settlement was required to protect against the possibility of a much larger award by the jury for punitive damages.

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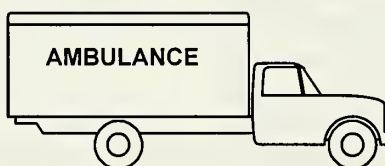
Application deadline: October 1, 1997, for January 30, 1998, examination.

Review text available: Appleton and Lange's Review for the Medical Assistant 4th edition, offers a complete review of all areas included in the examination. This text has detailed answers and explanations for over 1600 review questions and also a section on Test Taking Strategies. Many medical employees have successfully challenged the CMA examination using this review text. The price of the text is \$27.95. To order a copy of this book, call Appleton and Lange Publishers toll free at 1-800-423-1359.

Test application information: The address and toll free number to obtain application materials for certifying are listed in the Test Taking Strategies of the Appleton and Lange Review Text.

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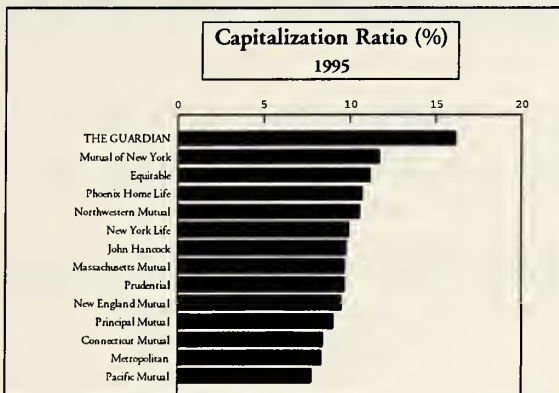
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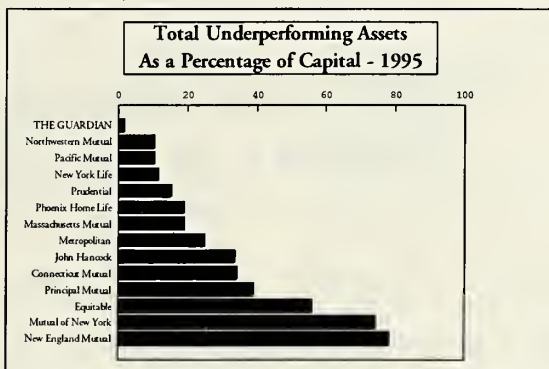


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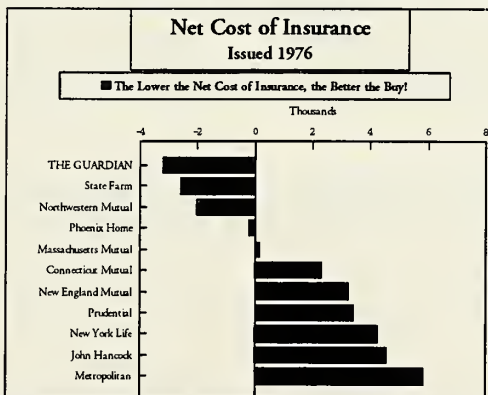
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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Protecting the Public's Health & Investigating the Potential for Exposure: The BPS Chemical Company Fire & Explosion in West Helena

On May 8, 1997, at approximately 1:30 P.M., a fire and explosion occurred at the BPS Chemical Plant in West Helena. A yellow plume erupted from the burning building. The local Office of Emergency Services decided to evacuate a three mile area surrounding the plant following the incident. Local, state and federal agencies were on scene to investigate the incident, including the Office of Emergency Services, local Police Departments, local Fire Departments, Arkansas Department of Pollution Control and Ecology, Arkansas Department of Health, Pine Bluff Arsenal, U.S. Environmental Protection Agency, and the Agency for Toxic Substances and Disease Registry.

The chemicals burned/destroyed in the fire include Azinphos-Methyl, Sevin, Premise, Lannate, Topsin-M, Maneb, Penncozeb, Alliette, and Procure (Imidazole). It is unknown how much of each chemical burned in the fire. Some unburned chemicals were found in the building, but solidified possibly by water used to fight the fire. The chemicals of greatest concern were the organophosphate (Azinphos-Methyl) and carbamates (Lannate and Topsin-M). The chemicals were "applicator" strength. Several are common chemicals, such as Sevin which can be used in vegetable gardens.

To determine if the public's health was at risk due to exposure, air and water monitoring were initiated. Extensive air monitoring was conducted from the day of the fire through May 13, 1997. With the exception of Helena Regional Medical Center, where 700 parts per million of an unidentified airborne ionizable gas or vapor was recorded inside the building on May 8, no air contaminants were identified in the ambient air. The chemical detected inside the hospital may have been alcohol or some disinfectant used routinely at the facility. The local drinking water supply was also sampled to insure that it was not contaminated. Six potable water samples were collected from an area extending from northwest to southeast of the BPS site. With the exception of the Helena water treatment plant, all levels were less than the detection limit of the equipment. The Helena plant did show a trace amount of the Azinphos-Methyl at a concentration of 0.02 micrograms per liter. The NOEL (no adverse effect level) for

the compound in drinking water is 88 micrograms per liter.¹ Based on the fact that the concentration of the azinphos-menthyl was one four-thousandth of the NOEL, it was determined that the concentration was not a threat to public health. A second sample taken on May 15 showed Azinphos-Methyl to be less than the detection limit. The source of the Azinphos-Methyl in the original sample may have been from agricultural use of the product.

Any health problems from the fire and explosion should have been experienced during or within hours after the fire because this would be the time when the maximum exposure would have occurred. Symptoms of exposure to cholinesterase-inhibiting chemicals usually occur during exposure, or within 12 hours (nearly always within four hours) of exposure, according to the Agency for Toxic Substances and Disease Registry. Normally, symptoms abate within a short period of time following an acute exposure. A latent period for acute symptoms to appear has not been documented.² Symptoms of acute exposure can include difficulty in breathing; excess fluid in the bronchial tubes; localized sweating; muscle contractions; pupil constriction; pallor; salivation; altered mental status; chest discomfort; coughing; abdominal pain; eye pain and tearing; blurred vision; nausea/vomiting; and bloody or runny nose. Symptoms of chronic exposure could include memory impairment; depression; confusion and thought disorders; personality changes; restlessness; anxiety and insomnia; and delayed neurotoxicity consisting of weakness, ataxia, spasticity, and extremity glove and stocking paresthesia. To cause chronic symptoms, a significant exposure to chemicals must occur.³ It is unlikely that significant exposure occurred as a result of the fire and explosion due to dilution by the air, when considering the results of the air and water monitoring which was conducted.

A red blood cell cholinesterase test, which is the preferred method of confirming cholinesterase-inhibiting pesticide toxicity, was run on 13 patients following the incident. Levels on all were within the normal range. Also, pseudocholinesterase levels were run on one individual and all levels were found to be within

the normal range.

Treatment for individuals with demonstrated high exposure is to remove them from the source of exposure. Treatment for clinically symptomatic poisoning usually includes administration of atropine, pralidoxime (2-PAM) and supportive therapy. Following the incident, one emergency worker was treated with atropine.

Anyone having additional questions can call the Arkansas Department of Health, Division of Epidemiology at 501-661-2893. A free case study titled "Cholinesterase-Inhibiting Pesticide Toxicity" is also avail-

able to those desiring further information by calling 501-661-2604. CME credit is available to physicians who complete the case study.

1. NOEL - 88 ug/L- est. by the National Research Council of Drinking Water and Health, National Academy of Sciences. Handbook of Toxic and Hazardous Chemicals and Carcinogens, 2nd Edition, Marshall Sittig. 1985-Noyer Publications.
2. Referenced from Tomest Meditext (R) database at the Agency for Toxic Substances and Disease Registry (ATSDR).
3. Editors, Mary O. Arndur, Ph.D.; John Doull, Ph.D., M.D., Curtis D. Klassen, Ph.D. "Casarett & Doull's Toxicology, The Basic Science of Poisons." Fourth Edition, Pergamon Press. P.#580-592.

Reported Cases of Selected Diseases in Arkansas Profile for May 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases May 1997	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	15	54	69	241	56	153
Giardiasis	6	62	46	182	44	131
Shigellosis	24	61	35	176	52	176
Salmonellosis	20	74	114	455	78	338
Hepatitis A	22	123	236	500	121	663
Hepatitis B	4	26	42	93	25	83
Hepatitis C	0	0	4	7	NR	NR
HIB	0	0	0	0	0	1
Meningococcal Infections	2	23	26	35	23	39
Viral Meningitis	1	10	11	38	7	33
Ehrlichiosis	2	3	1	7	7	14
Lyme Disease	2	4	15	27	4	12
Rocky Mountain Spotted Fever	1	3	6	22	6	31
Tularemia	4	7	9	24	9	22
Measles	0	0	0	0	2	2
Mumps	0	0	0	1	4	6
Gonorrhea	384	1978	2016	5050	2012	5437
Syphilis	42	247	388	706	419	1017
Legionellosis	0	0	0	1	4	8
Pertussis	2	4	3	14	12	59
Tuberculosis	16	80	90	225	89	271

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

New Members

BATESVILLE

Rumans, Todd Mark, Otolaryngology. Medical Education, University of Missouri School of Medicine, Columbia, 1988. Internship/Residency, Brooke Army Medical Center, San Antonio, Texas, 1989/1993. Board certified.

EL DORADO

Robertson, Donya B., Family Medicine. Medical Education, University of Tennessee, Memphis, 1994. Internship/Residency, AHEC-South Arkansas, 1995/1997.

HOT SPRINGS

Corbitt, Mark Alan, Cardiothoracic Surgery. Medical Education, Mercer University School of Medicine, Macon, Georgia, 1990. Internship/Residency, Orlando Regional Medical Center, Orlando, Florida, 1991/1995. Board certified.

Rogers, Marc A., General Surgery. Medical Education, UAMS, 1992. Internship, UAMS, 1993. Residency, University of Kansas School of Medicine, Wichita, 1997.

LITTLE ROCK

Baldwin, Shelly Lynn, Pediatrics. Medical Education, UAMS, 1993. Internship/Residency, UAMS - Arkansas Children's Hospital, 1994/1996. Board eligible.

Byerly, Stephanie I., Anesthesiology. Medical Education, University of Florida College of Medicine, Gainesville, 1992. Internship/Residency, University of Florida College of Medicine, Gainesville, 1993/1996. Board pending.

Cate, Chris McDaniel, General Surgery. Medical Education, UAMS, 1992. Internship/Residency, Baylor University Medical Center, Dallas, Texas, 1993/1997. Board eligible.

Fravel, Jonathan F., Radiology. Medical Education, Medical College of Georgia, Augusta, 1991. Internship, Medical Center Hospital, Columbus, Georgia, 1992. Residency, University of Louisville Hospital, Louisville, Kentucky, 1996. Board certified.

Greene, Graham Foley, Urology Oncology. Medical Education, Dalhousie University, Nova Scotia, Canada, 1989. Internship/Residency, Dalhousie University, Nova Scotia, Canada, 1990/1994. Board certified.

Kirchner, JoAnn E., Psychiatry. Medical Education, Mississippi University for Women, Columbus, Mississippi, 1980. Internship/Residency, UAMS, 1992/1995.

Yeager-Bock, Angy, Family Practice. Medical Education, UAMS, 1993. Internship/Residency, UAMS, 1994/1996.

MALVERN

Purifoy, Shawn W., Family Practice. Medical Education, UAMS, 1994. Internship/Residency, AHEC - Northeast, 1995/1997.

PARAGOULD

Blair, Donald W., Neurology. Medical Education, New York University, 1977. Internship/Residency, State University of New York at Stony Brook, 1979/1982. Board certified.

D'Anna, Richard E., Urology. Medical Education, Autonomous University of Guadalajara, Mexico, 1975. Internship, University of California College of Medicine, Irvine, 1977. Residencies, University of California College of Medicine, Irvine, 1978, and University of California School of Medicine, Davis, 1981. Board certified.

POCAHONTAS

O'Connor, Brendan, Radiology. Medical Education, University of the West Indies, Jamaica, 1971. Internship, Queen Elizabeth Hospital, Barbados, 1972. Residencies, Dalhousie University, Nova Scotia, Canada, 1978 and University of Toronto, Ontario, Canada.

ROGERS

Lueders, Andrew James, Family Medicine. Medical Education, UAMS, 1993. Residency, McLeod Regional Medical Center, Florence, South Carolina, 1996. Fellowship, Brackenridge Hospital, Austin, Texas, 1997. Board certified.

SEARCY

Calcote, Victor I., Pathology. Medical Education, UAMS, 1985. Internship/Residency, Baylor University Hospital, 1986/1990. Board certified.

SPRINGDALE

Powell, Mark W., Orthopedic Surgery. Medical Education, UAMS, 1991. Internship/Residency, West Virginia University Hospital, 1992/1996. Board certified.

VAN BUREN

Garrett, Kipton Luke, Internal Medicine. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1993. Internship/Residency, Oklahoma University Health Sciences Center, 1994/1997. Board certified.

WEST MEMPHIS

Ford, David W., General Surgery. Medical Education, University of Tennessee, Memphis, 1992. Internship/Residency, Medical University of South Carolina, 1993/1997. Board eligible.

RESIDENTS

Ball, Peter H., Family Practice. Medical Education, UAMS, 1997. Internship, AHEC - Northwest.

Byrd, Douglas William, Pediatrics. Medical Education, University of Tennessee Center for Health Sciences, Memphis, 1997. Internship, UAMS.

Gibson, William Donald, Emergency Medicine. Medical Education, University of South Alabama School of Medicine, Mobile, 1997. Internship/Residency, UAMS.

Griffin, Patrick William, Emergency Medicine. Medical Education, University of Missouri School of Medicine, Columbia, 1997. Residency, UAMS.

Griffin, Spencer Hart, Orthopedics. Medical Education, Tulane University School of Medicine, New Orleans, Louisiana, 1997. Internship/Residency, UAMS.

Johnson, Deborah A., Family Practice. Medical Education, UAMS, 1995. Internship/Residency, UAMS.

Johnson, Chad A., Family Medicine. Medical Education, University of Texas Southwestern Medical School, Dallas, 1997. Internship, AHEC-Northwest.

Johnson, David Glenn, Internal Medicine. Medical Education, Louisiana State University, Shreveport, 1997. Internship/Residency, UAMS.

Johnson, Darrell Jerry, Family Practice. Medical Education, Louisiana State University Medical School, Shreveport, 1997. Residency, AHEC-Fort Smith.

Johnson, Lia, Family Practice. Medical Education, Medical University of South Carolina, Charleston, 1985. Internship, AHEC-Fayetteville.

Lofton, Teresa D., Family Practice. Medical Education, University of Kansas School of Medicine, Kansas City, 1996. Internship/Residency, Central Texas Medical Foundation, Brackenridge Hospital, Austin/AHEC-Northwest.

Maddock, Thomas J., Family Medicine. Medical Education, University of Texas Health Science Center, San Antonio, 1997. Internship, AHEC-Northwest.

Meeker, Chris A., Emergency Medicine. Medical Education, University of North Dakota School of Medicine, Grand Forks, 1997. Residency, UAMS.

Palmer, Hal E., Pathology. Medical Education, UAMS, 1994. Residency, UAMS.

Pappas, Paul H., Family Practice. Medical Education, UAMS, 1997. Internship, AHEC-Northwest.

Pappas, Puifun W., Family Medicine. Medical Education, UAMS, 1997. Internship, AHEC-Northwest.

Platt, Lucas Oliver, Jr., Ophthalmology. Medical Education, University of Health Sciences College of Osteopathic Medicine, Kansas City, 1996. Internship,

University of Mississippi Medical Center, Jackson. Residency, UAMS.

Rickwartz, Kevin James, Emergency Medicine. Medical Education, University of Texas Medical School, Houston, 1997. Residency, UAMS.

Roberson, Rachel Rogers, Pediatrics. Medical Education, East Carolina University School of Medicine, Greenville, 1997. Residency, Arkansas Children's Hospital.

Shipman, Diana L., Ophthalmology. Medical Education, University of Texas Health Science Center, San Antonio, 1997. Internship/Residency, UAMS.

Taylor, Tamara L., Internal Medicine. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Tutt, Richard D., Family Practice. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1997. Internship, AHEC-Northwest.

Wells, Britton Colby, Orthopedic Surgery. Medical Education, St. Louis University School of Medicine, St. Louis, Missouri, 1997. Internship/Residency, UAMS.

Wiseman, Merle D., Family Practice. Medical Education, Loma Linda University School of Medicine, California, 1997. Internship/Residency, AHEC-South.

STUDENT

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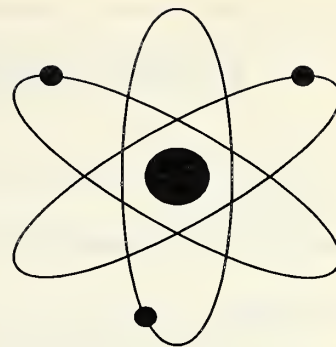
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Radiological Case of the Month

Steven R. Nokes, M.D., Editor

Authors

Kenneth V. Robbins, M.D.
Frederick A. Meadors, M.D.
Thomas W. Koonce, M.D.
William D. Dedman, M.D.
Michael T. King, M.D.



History:

A 36-year old athletic, non-smoking male presented to his family physician with right calf claudication. The physical examination was normal, except for absent popliteal, posterior tibial, and dorsalis pedis pulses. A right lower extremity angiogram was performed (Fig. 1). Following percutaneous transluminal angioplasty (PTA) the angiogram was repeated (Fig. 2). An MR scan was also performed post PTA (Fig. 3).



Figure 1



Figure 2

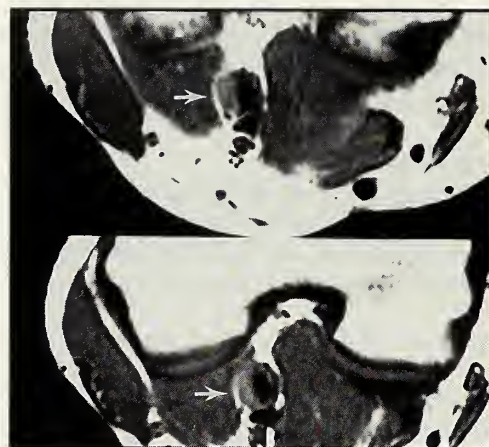


Figure 3

Figures:

Figure 1. Right popliteal artery angiogram.

Figure 2. Angiogram post PTA.

Figure 3. Popliteal artery MRI post PTA (TR 3000 TE 119 ef).

Cystic Adventitial Disease of the Popliteal Artery

Diagnosis:

Cystic adventitial disease of the popliteal artery.

Findings:

The right lower extremity angiogram demonstrates smooth scalloped severe narrowing of the popliteal artery (Fig. 1). There is improvement in the caliber of the popliteal artery post angioplasty (Fig. 2). The MRI of the popliteal artery post angioplasty shows thickening of the anterolateral wall of the popliteal artery (arrow), characterized by high signal on T₂-weighting (Fig. 3).

Discussion:

An unusual clinical history in young patients with intermittent claudication of the calf may be a sign of nonatherosclerotic pathogenesis. The differential diagnosis includes cystic adventitial disease (CAD), thrombosis, popliteal entrapment syndrome, and popliteal aneurysm. CAD of the popliteal artery is a rare disorder which is most prevalent in young adults. Patients have calf claudication caused by compression of the arterial lumen by mucin-containing cysts situated in the adventitial tissue. Various means of diagnostic workup have been reported including magnetic resonance imaging (MRI), contrast enhanced computed tomography, duplex sonography, intravascular ultrasound, and angiography. MRI with MRA is felt to be the overall best imaging modality to reliably make this distinction between CAD and the other causes of popliteal artery disease because it directly demonstrates cysts within the wall as the cause of the stenosis. The various therapeutic options include CT-directed cyst aspiration, percutaneous transluminal angioplasty, total cyst resection, arteriotomy or resection of diseased artery with venous or prosthetic interposition or bypass of the diseased segment.

References:

1. Crolla RMPH, Steyling JF, Hennipman A, Slootweg PJ, Taams A. A case of cystic adventitial disease of the popliteal artery demonstrated by magnetic resonance imaging. *J. Vasc Surg* 1993; 18:1052-5.
2. Koppensteiner R, Katzenschlager R, Ahmandi A, Staudacher M., Horvat R, Polterauer P, Ehringer H. Demonstration of cystic adventitial disease by intravascular ultrasound imaging. *J. Vasc Surg.* 1996;23:534-6.

Editor: Steven R. Nokes, M.D. is associated with Radiology Consultants in Little Rock.

Contributors:

Kenneth V. Robbins M.D. is associated with Radiology Consultants in Little Rock.

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Michael T. King, M.D. is associated with Radiology Consultants of Little Rock.

Resolutions

Howard M. Armstrong, M.D.

WHEREAS, the membership of the Pulaski County Medical Society observes with genuine sorrow the recent death of a respected member, Howard M. Armstrong.; and
WHEREAS, he was a loyal member of this organization for over fifty years, serving with energy and enthusiasm whenever called upon; and
WHEREAS, Dr. Armstrong's patriotism was manifested by distinguished service in the Army Medical Corps and the Arkansas Air National Guard; and
WHEREAS, he earned the respect and admiration of his patients and fellow doctors in the community for excellence in his chosen field of General Surgery;
BE IT THEREFORE RESOLVED:
THAT, this resolution be adopted and placed in the archives of this Society; and
THAT, a copy of this resolution be mailed to Dr. Armstrong's family as a token of our sympathy; and
THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

All Resolutions Adopted
Board of Directors
May 21, 1997

By Order of the Memorials Committee
Fred O. Henker, III, M.D., Chairman
James W. Headstream, M.D.
Bruce E. Schratz, M.D.

In Memoriam

Howard Morris Armstrong, M.D.

Dr. Howard Morris "Sonny" Armstrong of Little Rock died Thursday, May 1, 1997. He was 80. He is survived by his wife Lois Greene Armstrong.

Edward N. "Bud" McCollum

Dr. Edward N. "Bud" McCollum of Decatur died Friday, June 13, 1997. He was 63. He is survived by his wife, Chris McCollum; three sons, Dr. William E. McCollum and Michael McCollum, both of Decatur, and Kelly McCollum of Eagle Rock, Mo.; two daughters, Kim Eiler of Holiday Island, AR, and Michelle Lancett of Decatur; two brothers, Dr. Robert McCollum of Fayetteville and Sidney McCollum of Bentonville; and seven grandchildren.



Things To Come

September 4-6

International Symposium on Gasless Laparoscopy. Bochum, Germany. Sponsored by the American Association of Gynecologic Laparoscopists. For more information, call 1-800-554-2245.

September 5-7

4th Annual Current Topics in Cardiothoracic Anesthesia. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

September 18-20

Contemporary Cardiothoracic Surgery. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

September 23-28

International Congress of Gynecologic Endoscopy/AAGL 26th Annual Meeting. The Washington State Convention & Trade Center, Seattle, Washington. Sponsored by the American Association of Gynecologic Laparoscopists. For more information, call 1-800-554-2245.

October 15-19

2nd Annual CME Course - Infectious Disease '97 Board Review: A Comprehensive Review for Board Preparation. The Ritz-Carlton, Tysons Corner, McLean, Virginia. Sponsored by The Center for Bio-Medical Communication, Inc. For more information, call (201) 385-8080.

October 26-30

1997 State-of-the-Art Conference: Occupational and Environmental Medicine. Nashville, Tennessee. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call (847) 228-6850, ext. 152.

November 13-14

23rd Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

AMS Sponsors Workshops

September 23, 1997

Basic CPT for Family Practice/Internal Medicine

September 24, 1997

Basic ICD-9 for all specialties

September 25, 1997

Basic CPT/ICD-9 for General Surgery

October 16, 1997

Managed Care Update:

Advanced Strategies for Practice Survival

This workshop will show you how to become more proactive in the managed care marketplace. Numerous case examples will be used to illustrate the following topics:

- * getting into the better plans *
- * tracking managed care plan results *
- * reorganize some of the staff jobs *
- * learn about outcome studies *
- * determine ways to reduce practice overhead in a reduced-reimbursement environment *

October 23, 1997

Basic Medical Insurance & Medicare Filing

December 4, 1997

Coding Analysis

to Maximize Reimbursement in 1997

A hands-on workshop with informative case studies. Major emphasis is on the complex relationship between the procedure, the diagnosis, place of service, provider status and patient financial class for traditional and non-traditional (HMO/PPO) claims processing. Workshop requires a background in the basics of CPT, ICD-9 and the HCFA-1500.

**For more information,
call 501-224-8967**

Keeping Up

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

General Internal Medicine Review, Wednesdays, 12:00 noon, Room 238 Bldg. 1
Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Update (Management of Top 20 Ambulatory Diagnoses), October 3-5, 1997, Gaston's Lodge on the White River.
For more information, call 1-800-422-0322 or 501-442-1823.
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Thursday, August 21, 1997. Arkansas Foundation for Medical Care/Quarterly Video conference. 12 noon to 1:30 p.m. Topic: Asthma - Disease Management Project, Effective Use of INR, and Out Patient Diabetes Project Update. Location: UAMS education building/AHEC's and Rural Hospital Affiliates. For more information, call 501-649-8501, ext. 203.

Thursday, November 20, 1997. Video conference. 12 noon to 1:30 p.m. Topic: to be announced. Location: UAMS education building/AHEC's and Rural Hospital Affiliates. For more information, call 501-649-8501, ext. 203.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.

Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital/OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Cardiology Conference, dates vary, 7:00 p.m., locations vary
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Geriatrics Conference, 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.
Tumor Conference, 4th Tuesday, 12:00 noon, Medical Center of South AR, Warner Brown Campus
Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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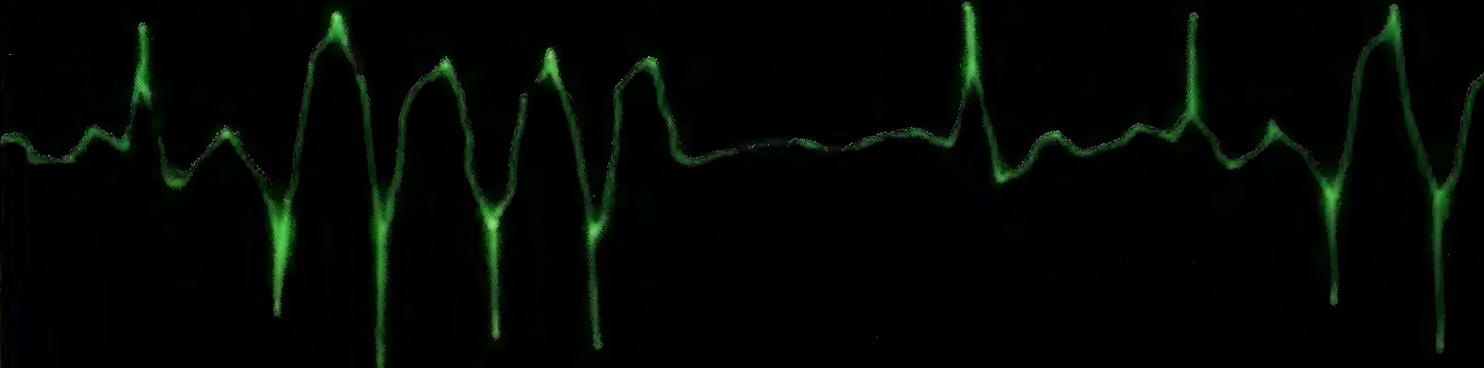
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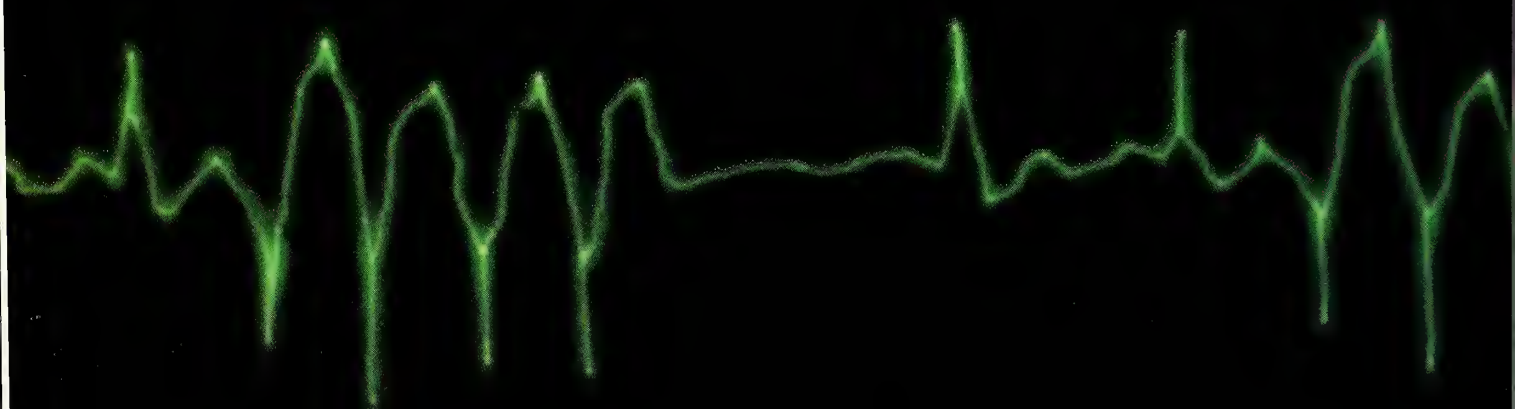
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September 1997

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Nicole M. Miller, B.S.

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Cover photograph by Matt Bradley of Little Rock. For tips on taking better pictures see article on page 142 and for information on ordering a book of Arkansas photographs see page 141.

Who Should Manage Care?

Ben N. Saltzman, M.D.

We are all aware that the practice of medicine today involves more than the diagnosis and treatment of illness and injury. We hear of the importance of medical ethics in our relationships with our colleagues in medicine and our patients in our practices. I entered the University of Oregon Medical School in 1936 and graduated in 1940. I am rightfully considered to be an old-timer in medicine. I feel that I learned my concept of medical ethics from the writings of Sir William Osler, a Canadian physician who died in 1919. His word was law, and he was highly respected internationally.

I became a charter member of Audio-Digest several years into my general practice in Mountain Home, Arkansas. The Audio-Digest Foundation considers itself to be the Gold Standard of Continuing Medical Education. In fact, many of our faculty members at UAMS have lectured frequently, worldwide through Audio-Digest Cassette tapes. Just recently, Audio-Digest announced two historic events that would change the face of American Medicine in Philadelphia in 1847 - the founding of the American Medical Association (AMA) and one of its most significant actions - the adoption of the first national code of medical ethics on May 7 of that year. A century and a half later, the nation's most renowned and respected physicians, bioethicists and medical historians gathered in that same city to celebrate the birth of a major American institution and to reaffirm the medical profession's commitment to the sanctity of the patient/physician relationship.

Needless to say the Audio-Digest Foundation documented this historic event on 10 audio cassettes. This provides an opportunity to enhance your understanding of medical ethics in America.

Now why did I take you through all this? Actually it was in preparation for an event I witnessed just a month ago.

At the last annual meeting of the Arkansas Academy of Family Physicians, Janet T. Honeycutt, Executive Director of the Arkansas Caduceus Club, invited me to attend this year's White Coat Ceremony. This would take place on the night of August 7, 1997 at 7.30 p.m. at the North Oaks Convention Center in North Little Rock. I later learned that this was to become an annual event. The Dean of the College of Medicine, Dr. I. Dodd Wilson, invited the incoming Freshman class and their relatives to attend with the following statement. (I received permission from him to quote him verbatim.)

Dear Medical Students:

The medical school experience consists of more than learning the science, skills, and knowledge basic to the practice of medicine. It also should be a time of self discovery and of learning to put the care of others before the needs of one's self. Medical school is a time to learn the attributes of the ethical and compassionate are inculcated in the student-physician by example. The White Coat Ceremony this evening is the beginning of this process.

As you begin your medical education, the faculty and the administration of the College of Medicine want you to know that ethical behavior and compassion are cornerstones to the healing of the sick. Medicine without ethical behavior and compassion is unacceptable. The art of medicine is nurtured in your humanity and compassion toward your patients. A truly competent physician practices both the science and the art of medicine. Your patients must come before your personal gain.

We hope that you will remember and reflect upon the importance of the White Coat Ceremony. I and the faculty of the College of Medicine wish you the very best as you begin your journey in medicine.

Dr. Charles W. Logan, President of the Arkansas Medical Society, spoke of the importance of membership in the society both on the Statewide basis and the AMA. In membership, there is strength for the individual as well as the group. Progress can occur if medicine speaks with one voice.

Ms. Amy Martin, Co-President of the College of Medicine Honor Council, provided insight into the activities of the Council.

Dr. Robert W. Barnes, Professor and Chairman of the Department of Surgery in the College of Medicine, UAMS, stressed the importance of the physician in the care of the patient. In other words, only the physician should manage the patient's care.

The Medical Students Oath was impressive prior to conferral of the white coats. The 152 students donned their white coats as they paraded across the stage. The audience of families and faculty applauded the impressive conclusion of the ceremony. I believe that convocations of this type can increase interest and a greater desire to work and socialize together in future years. Dr. Barnes said it concisely. *Only you, the physician should manage care.*

Of interest to all should be the fact that the White Coat Ceremony is Sponsored by the College of Medicine, UAMS, the Arkansas Medical Society and the Class of 1951 in the College of Medicine

* Dr. Saltzman, a retired family practitioner of Mountain Home, is an editorial board member for *The Journal*.

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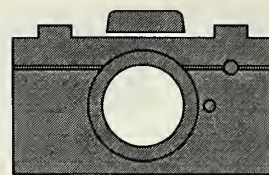
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Tips for Taking Better Pictures

A Special Article for those who enjoy photography

by Catherine Bernard



Arkansas is a photographer's paradise. With communities of diverse people, plus miles of forests, lakes, rivers and mountains, the Natural State offers rich photographic subject matter. Arkansas photographer, Matt Bradley, has a passion for his home state that is captured throughout his work. His photographs reveal that a camera can open the door to exploration and invite creative expression.

The Pine Bluff native has visited some of the most beautiful spots in the world. He has traveled to places like Alaska, Africa and Asia to shoot magazine covers and photographs for *National Geographic*, *Sailing* and *Forbes*, and Heifer Project International. But Bradley admits some of his favorite photographs were shot right here at home.

His enthusiasm for Arkansas shines through the four books he published and dedicated to his home state. In his most recent publication, *Arkansas*, Bradley unveils a unique portrait of the state's people and landscape through an emotion-provoking collection of photographs.

For more than two decades, Bradley has refined his skills as a successful freelance photographer. His years of professional experience coupled with his gift for teaching led him to begin a series of annual photography workshops which are now attended by aspiring photographers from across the nation. His philosophy on photography is straight-forward and simple. Read on to learn some of his basic advice and tips for taking better pictures.

Q: What is the first advice you would give to a beginning photographer?

MB: "Keep it simple, and get close."

Q: What are the three most important things to consider when composing a shot?

MB: "First, before you take a photograph, ask yourself, 'What am I trying to communicate?' A good photograph must have a message of some kind. That is where composition starts. Second, eliminate anything that detracts from or confuses your message. Try to introduce things that make your message stronger. And lastly, consider including a center of interest that will immediately attract the eye of the viewer."

Q: What are your favorite places to shoot in Arkansas?

MB: "The mountain areas come to mind right off the bat. The Ozarks and Ouachitas and any body of water, particularly in the spring and fall. In my mind, there is no doubt that Arkansas is the most beautiful and most colorful in these times of the year."

Q: What is your favorite time of the day to shoot?

MB: "Early and late in the day, when the light is low, because it helps to paint the landscape."

Q: What type of camera do you recommend for travel?

MB: "For the casual photographer, the point-and-shoots are great cameras. For more avid photographers, the point-and-shoots can be a little restrictive. Go to a camera store where they really know their equipment. Once they understand your photo interests, they can recommend a camera to best fit your needs."

Q: Do you use artificial lighting in your outdoor photographs?

MB: "I do with people. I'll use fill-flash sometimes, particularly in bright sunshine, to avoid deep shadows under hat brims or eyes."

Q: Do you prefer to work with a specific film?

MB: "For color slide film, I use the Fuji films; I don't shoot a lot of color negative, but I've had good results with Kodak Royal Gold."

Q: Which is better, slide film or color negative film?

MB: "If prints are your first priority, you should use a color negative film. Color slide film is more demanding exposure-wise. What you put on film is what you get, where there is a degree of forgiveness with color negative film if your exposure is not correct. Consider using color slide film if you enjoy using a slide projector or if you are shooting for publication. If you want prints from your slide film, a "Type R" print can be made directly from the slide and the quality is usually pretty good."

Q: What are the criteria to consider when looking for quality developing?

MB: "A full-fledge photo store should be a good source of information, as should a professional photographer like the local studio photographer in a small town."

Q: What brand of camera do you recommend?

MB: "I use Nikon. My attitude is that if you give an accomplished photographer any camera, they'll take good pictures. The camera is really not that important. The camera takes the picture, but it's the brain behind the camera that makes the picture."

For information on ordering Matt Bradley's book of photography titled, Arkansas, see the ad on page 141. For information on photographic workshops by Matt Bradley, call Poe Travel in Little Rock at 501-376-4171.

Medicine in the News

Health Care Access Foundation

As of August 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 12,908 medically indigent persons, received 24,578 applications and enrolled 47,793 persons. This program has 1,764 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

National Market Trends

The following is provided by the AMA FED-NET, 7/21/97

*The Arizona Court of Appeals recently ruled that a medical director of an insurance company can be disciplined by the state Board of Medical Examiners for a coverage decision. In that case, the medical director of Blue Cross and Blue Shield of Arizona refused to approve coverage for gallbladder surgery that was recommended by the patient's surgeon, deciding that it was not medically necessary. The surgeon proceeded with the operation and billed Blue Cross which subsequently paid the bill after the gallbladder was found to be diseased. The patient and her physician filed a complaint with the Board of Medical Examiners which issued an advisory letter of concern regarding "an inappropriate medical decision which could have harmed a patient." The appeals court rejected the medical director and the Blues' challenge to the Board's authority to review insurance-related decision. (Arizona Daily Star, July 16, 1997)

*Mayo Clinic Scottsdale has been granted an HMO license by the Arizona Department of Insurance allowing it to begin operations January 1, 1998. The Mayo HMO will include a network of 10 hospitals, 1,100 physicians, and ancillary providers. Some experts predict that despite Mayo's excellent reputation, the HMO will have an uphill battle because it attracts patients with complex medical conditions without a healthy population base to offset them. (The Business Journal of Phoenix, July 7, 1997)

*Rather than raise premiums, Blue Cross and Blue Shield of Minnesota is cutting reimbursement rates up to 10% for certain specialists. Blues officials claim that the cuts were necessitated by high costs and high use of services and have the added effect of moving fee-for-service physicians to the managed care schedule. (American Medical News, July 14, 1997)

*A study published in *The New England Journal of Medicine* found significant differences in treatment of stroke patients between Medicare HMOs and traditional fee-for-service patients, with less HMO patients receiving post-hospitalization care in rehabilitation centers. Forty-two percent of stroke patients in Medi-

care HMOs went to nursing homes after the initial stroke, with 16% going to costlier rehabilitation centers. Twenty-eight percent of fee-for-service Medicare patients were sent to nursing homes, while 23% were sent to rehabilitation centers. The study's authors conceded that further study was needed to determine whether HMOs are withholding necessary care, but that the findings raise troubling issues regarding whether HMOs are providing less care to stroke patients that may adversely affect their eventual recovery. (New York Times, July 9, 1997) - See related information in a following article on next page.

*The California Public Employees Retirement System is joining with HealthNet, a large HMO, to study how patients in HMOs should best access specialists. The entities will be working with several large California medical groups, including the Alta Bates Medical Group and Scripps Medical Associates, and plan to offer the study's results as best practices models for the industry. (BNA's Health Law Reporter, 7/10/97)

*PacifiCare of Florida has been fined \$200,000 by the state's Agency for Health Care Administration after an on-site review found deficiencies in 28 of 44 standards, including delayed referrals to specialists and delayed second opinions. Enrollment was also suspended, and the HMO must provide a plan of correction. PacifiCare has enrollees in Dade, Broward and Palm Beach counties. (BNA's Health Law Reporter, 7/10/97)

Diet Pills Linked to Valvular Heart Disease

In an unusual move, *The New England Journal of Medicine* allowed the prepublication release of an article describing an association between valvular heart disease and combined therapy with fenfluramine and phentermine for weight reduction. The paper appeared in the August 28 issue of the *Journal*.

Physicians at the Mayo Clinic and the MeritCare Medical Center in Fargo, North Dakota, report the cases of 24 women with no prior history of heart disease who took fenfluramine plus phentermine. After an average of one year on the medication, patients presented with cardiovascular symptoms and new heart murmurs reflecting mitral, aortic, and/or tricuspid regurgitation; eight had newly documented pulmonary hypertension. So far, 5 patients have required valvular surgery. The affected valves had a glistening white appearance with pathologic features similar to those seen in carcinoid or ergotamine-induced valvular disease.

Comment: Although this series is highly suggestive, it does not prove conclusively that these medications cause valvular cardiac disease. Only last year, the related drug dexfenfluramine was implicated as a possible cause of pulmonary hypertension. The authors speculate that fenfluramine plus phentermine

might alter serotonin metabolism and thus cause carcinoid-like lesions. While the frequency of this association remains unclear, this report has prompted the FDA to issue a warning to patients and health professionals. -AS Brett

Connolly HM et al. *Valvular heart disease associated with fenfluramine-phentermine*. *N Engl J Med* (August 28, 1997 issue).

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Risk Factors for CHF Readmission

Patients admitted to the hospital for congestive heart failure (CHF) have a poor prognosis and are at high risk for readmission. Improved risk stratification might help physicians select follow-up care that improves outcome. These investigators prospectively studied 257 patients (average age, 67) admitted to a Boston teaching hospital for CHF and followed them for two months. Social and compliance data were collected from interviews, and medical data from hospital records. During follow-up, 32% of the patients died or were readmitted.

Risk factors for readmission or death included being single (hazard ratio, 2.1), having other medical conditions (hazard ratio, 1.3 per point to a maximum of 4 points), systolic blood pressure of 100 mm Hg or less (hazard ratio, 2.8), and absence of ST-T wave changes on the ECG (hazard ratio, 1.9). Patient-reported compliance with the treatment regimen and clinical stability at discharge did not correlate with readmission.

Comment: This study's most striking finding was that single marital status correlated with risk for death or readmission in patients with CHF more strongly than did many clinical factors. This finding emphasizes the importance of case management that addresses social as well as clinical factors. -TH Lee

Chin MH and Goldman L. *Correlates of early hospital readmission or death in patients with congestive heart failure*. *Am J Cardiol* 1997 Jun 15; 79:J6404.

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Stroke Mortality: Fee-for-Service Versus Managed Care

An increasing percentage of Medicare patients receive their care through HMOs, and the question of quality under such programs remains controversial. This study compared triage decisions and mortality in 810 hospitalized stroke patients who received either HMO or traditional fee-for-service care.

Inhospital mortality was similar for HMO and fee-for-service patients (12% vs. 15%, respectively). Condition at discharge was essentially the same in the two groups, but HMO patients were more likely to be discharged to nursing homes (40.5% vs. 29%), and less

likely to be discharged to rehabilitation hospitals or units (17% vs. 23%) or home (42.5% vs. 48%). At the end of the follow-up period averaging about two and a half years, the mortality rates, adjusted for variables including age, marital status, race, status at admission, stroke severity, and comorbidity, were similar for HMOs and fee-for-service (47.5% and 54%, respectively).

Comment: These data demonstrate that Medicare HMO patients who have strokes are more likely to be discharged to nursing homes, which are less expensive than rehabilitation facilities. Nevertheless, the mortality rates at two and a half years are similar. -TH Lee

Retchin SM et al. *Outcomes of stroke patients in Medicare fee for service and managed care*. *JAMA* 1997 Jul 9; 278:119-24.

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Exercise for Chronic Fatigue Syndrome

Patients with chronic fatigue syndrome (CFS) perceive greater fatigue when exercising than healthy controls, despite no measurable differences in muscle strength or fatigability. Because aerobic exercise has been shown to reduce symptoms in other chronic conditions, these investigators tested the effectiveness of a graded aerobic exercise program for patients with CFS.

Researchers randomized 66 patients with CFS who did not have a psychiatric or sleep disorder to receive 12 weeks of either increasing aerobic exercise training or a combination of flexibility training and relaxation therapy. Patients who completed the latter program were invited to subsequently cross over into the aerobic program.

Four patients assigned to aerobic exercise and three assigned flexibility training dropped out before completing therapy. At 12 weeks, 55% of the aerobic exercise patients rated themselves as "much better" or "very much better," compared with 27% of flexibility patients, a difference of borderline significance. Measures of fatigue, functional capacity, and fitness were significantly better after aerobic training. Fifty-five percent of those who crossed over to aerobic exercise after completing flexibility training rated themselves as better after completing the aerobic regimen. Two-thirds of those who completed the aerobic regimen rated themselves as better at three months, and three-quarters at one year.

Comment: Graded aerobic exercise seems to offer important benefits to patients with CFS and no coexisting psychiatric disorder -KI Marton

Fulcher KY and White PD. *Randomized controlled trial of graded exercise in patients with chronic fatigue syndrome*. *BMJ* 1997 Jun 7;314:1647-52.

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Medicare Post Pay Review Audits

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Texas Doctor Goes To Jail, Re-Pays Medicare \$,,\$,\$,\$\$. (Houston Chronicle)
Office Manager (Wife) Indicted as Co-Conspirator

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AMS Newsmakers

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. Recipients for the month of July are as follows: Steven Clark Fincher, Searcy; Kimberly Karen Garner, Pine Bluff; Patrick Morris Hatfield, Batesville; Michael Conley Hendren, Russellville; Khurram Moin, Pine Bluff; James John Pappas, Little Rock; Andre Burr Whiteley, Springdale; and Thomas Henry Wortham, Jacksonville.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:

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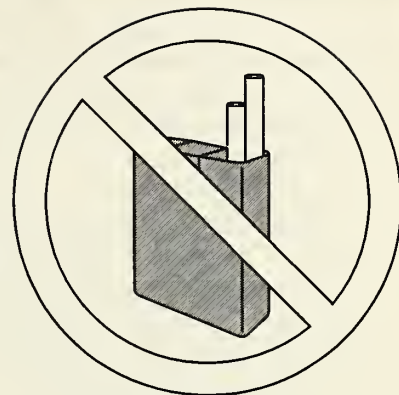
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David S. Bachman, M.D.*



Many types of cessation programs have been used to help smokers break their addiction - group therapy, hypnosis, acupuncture, correspondence courses, self help programs, etc. Initial success with such programs is often gratifying. However, with passage of time, resumption is all too common. Telephone counseling plus nicotine patch use seems the most successful avenue of treatment.

In 1994, Kerch Wellness, a health management organization, of Russellville, Arkansas, was requested to counsel a group of transportation employees desirous of becoming tobacco free. Four separate groups - three from Little Rock and one from Houston, Texas - were counseled via telephone by a physician.

The first telephone contact consisted of acquainting the participant with the physician-counselor's background, inquiring as to the amount smoked, why they wanted to stop, why they smoked and what enjoyment was derived from smoking. This initial phone call was followed with a mailing including the physician-counselor's professional background and a questionnaire exploring why the participant smoked and outlining coping measures to counter the person's reasons for smoking.

During the next phone counseling session, the answers to the questionnaire were discussed. This information in addition to the reasons why the participant wanted to become a non-tobacco user set the tone for future counseling. Following each phone session, specific articles related to smoking were mailed to the participant. For example, if money spent for smoking was an issue, an article showing the cash outlay necessary to satisfy their addiction proved helpful. (Often money spent on cigarettes could pay for a child's college education over a 15-year smoking period.) If

the participant was concerned about the health damaging effects of smoking, an article dealing with smoking and disease was mailed.

During counseling, the word "quit" was discussed at length. It was explained to the participant that by using the word "quit," a contract is made. Then, should the participant slip and smoke one cigarette, the contract is broken and the door is opened for unlimited smoking. By "choosing" not to smoke, no contract is made. Should the participant slip, no contract is broken and one is free to continue trying.

The bottom line of the program was to help the participant learn to enjoy not smoking. The fear of disease will not keep a person tobacco free for any length of time. Showing what is missing by smoking and providing useful "tricks" to combat smoking urges proved most successful. In addition to telephone counseling, each participant was encouraged to use a

RESULTS

Four separate groups were counseled:

Group 1:

received 12 month counseling
18 in group
17 (94%) not smoking

Group 2:

received 12 month counseling
15 in group
13 (86.6%) not smoking

Group 3:

received 11 month counseling
8 in group
7 (87%) not smoking

Group 4:

7 month counseling
30 in group
24 (80%) not smoking

* Dr. Bachman, a retired physician of Dardanelle, is Medical Director of Smoking Education at Kersh Wellness Management Inc. in Russellville.

nicotine patch. Research has shown that the "stopping process" was much smoother and easier with the use of a patch.

The importance of using a patch was done by discussing the two components of nicotine addiction - psychologic and drug addiction - and followed by articles dealing with the subject. Once explained, many participants used the patch and found that their urges were greatly diminished.

It is important to use the nicotine patch for six months - full strength for the first three months, then half strength for the next three months (research has shown a rather marked relapse up to six months following smoking cessation - little relapse thereafter). Unless there is interrupted sleep due to the desire to smoke, a 16-hour patch is sufficient.

Counseling by a physician interested and knowledgeable of nicotine addiction is most important for good results.

Follow-up Study

The 18 members of Group 1 were contacted three months after the last counseling session. All of the 17 who had stopped smoking during the program were still tobacco free. Further follow up phone calls were to be done by the transportation company. Those results were not available at the time of this writing.

Overview

Telephone counseling for twelve months by a physician resulted in an 80% plus smoking cessation rate for addicted smokers desiring help. Incorporation of a nicotine patch shortened the time to become smoke free and reduced withdrawal symptoms. Cotinine and or carbon monoxide expiration confirmatory studies were not included in protocol.

Conclusion

Monthly telephone counseling for twelve months and incorporation of a nicotine patch produced favorable smoking cessation results. This type of approach for treatment of nicotine addiction was successful in that it incorporated counseling and follow-up on a monthly basis for 12 months. Maintaining contact with the tobacco user over this length of time minimized relapse. Telephone counseling, conducted by physicians interested and knowledgeable on the smoking problem, can serve as a useful method in the treatment of nicotine addiction.

Addendum

Some people, despite patch use, have irresistible urges to smoke. This group should benefit with additional use of nicotine spray and other aids that are currently new to the market.

When to Try to Stop Smoking

The decision to try to stop smoking is a personal one - be it for health reasons, expense, feelings of entrapment, knowing one is addicted or creating a poor image to one's children.

Rationalizing one's need to smoke is fallacious and contrary to how one reacts to a crises. For example, should one be faced with an oncoming storm and told that there is a 50-50 chance of either being killed or disabled, there would be a mad flight to safety. The same odds prevail for the 50 million smokers who continue playing their game of Russian roulette and/or live under the false pretense that, "it won't happen to me."

Procrastination, rationalization and denial are key words for someone not quitting smoking. Smoking is a crutch, poor as it is, that is held on tenaciously by smoking's addicts. Unless that crutch is replaced by a non-disease producing one, the health eroding smoking ritual will continue.

Like alcoholics, smokers should not try stopping until they are emotionally ready to do so - goading or cajoling one to quit is an exercise in futility. For some, smoking is a lifetime addiction and must be handled like diabetics - treatable but incurable.

When a person is ready, counseling by a knowledgeable medical person plus use of a nicotine patch should produce abstinence rates over 80%.

The bottom line in any cessation program is to show the smoker the *pleasure* of *not* smoking.

**The following
information related to
smoking is provided
for physicians as
a tool in helping
patients who desire to
quit smoking. Please
make copies available
for those patients.**

Helpful Hints & Tricks to Quitting Smoking

- * Change your routine to eliminate smoking triggers. For example, if the morning cup of coffee meant a cigarette, switch to tea for awhile.
 - * Change your work environment.
 - * Take a walk instead of a coffee break.
 - * Get rid of all ashtrays and lighters.
 - * Don't wait for a cigarette.
 - * Go to lunch with a non-smoking friend.
 - * Urge tamers: Get busy - stretch, take three deep breaths, learn a new hobby, wash and wax the car.
 - * Smokeless inhalation: When you have the urge to smoke, breathe in deeply through your mouth. Hold your breath three seconds. Exhale slowly through pursed lips. Continue until the urge passes.
 - * Drink up to 8 glasses of water daily. Water acts as an appetite suppressant and a substitute behavior for smoking.
 - * Eat plenty of fresh fruits, vegetables and salads (with fat free salad dressing).
- * Start a money jar: Put amount of money spent each day on cigarettes in a jar each morning and have a "blast" as the end of the month!
 - * Urge tamer: Put a rubber band on your wrist, snap it several times when you have the urge to smoke.
 - * Stress: There are good and bad forms of stress. Learn to identify your stressors; work pressure, pain, arguments, etc.
 - * Means of handling stress: Remember that smoking never changes a stressful situation, it just adds to it.
 - * Technique for handling stress: Tense and relax four muscle groups - arms and hands, face and neck, middle torso, and legs and feet. Tense each muscle group five seconds while holding your breath, then relax. Practice this technique daily for several minutes, especially in times of stress.
 - * Another technique for handling stress: Think of the "Sea Tape," breath deeply, close your eyes, take five deep breaths and slowly exhale.

Behavior Modification Tips

Buddy System
Self Reward
Avoid Traps
Mirror Talk
Viewing Cigarette Butts
Viewing Money Jar
Creative Daydreaming
A Plan to Handle Stress

Information provided by David S. Bachman, M.D., Medical Director of Smoking Education at Kersh Wellness Management Inc. in Russellville.

Consider a career in Correctional Medicine!

Correctional Medical Services began providing medical services for the Arkansas Department of Corrections on July 1, 1997. As a result of current and future contract needs we are interested in speaking with qualified physicians in the following specialties:

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Why Do You Smoke?



Take the following short test, and you will understand some of the reasons why you smoke. Your answers to the test questions will help you choose the best way to quit.

Summary

If you do not score high on any of the six factors, chances are that you do not smoke very much or have not been smoking for very many years. If so, giving up smoking and staying off should be easy.

If you score high on several categories, you apparently get several kinds of satisfaction from smoking and will have to find several solutions. Certain combinations of scores may indicate that giving up smoking will be especially difficult. Those who score high on both factor 4 and factor 5, reduction of negative feelings and craving, may have a particularly hard time in going off smoking and in staying off. However, there are ways to do it; many smokers represented by this combination have been able to quit.

Others who score high on factors 1 and 5 may find it useful to change their patterns of smoking and cut down at the same time. They can try to smoke fewer cigarettes, smoke them only half-way down, use low-tar/nicotine cigarettes, and inhale less often and less deeply. After several months of this temporary solution, they may find it easier to stop completely.

You must make two important decisions: (1) whether to try to do without the satisfactions you get from smoking or find an appropriate, less hazardous substitute, and (2) whether to try to cut out cigarettes all at once, or taper off.

Why do you smoke?

Here are some statements made by people to describe what they get out of smoking cigarettes. How often do you feel this way when smoking? Circle one number for each statement.

Important: ANSWER EVERY QUESTION.

	always	frequently	occasionally	seldom	never
A. I smoke cigarettes in order to keep myself from slowing down.	5	4	3	2	1
B. Handling a cigarette is part of the enjoyment of smoking it.	5	4	3	2	1
C. Smoking cigarettes is pleasant and relaxing.	5	4	3	2	1
D. I light up a cigarette when I feel angry about something.	5	4	3	2	1
E. When I have run out of cigarettes, I find it almost unbearable until I can get them.	5	4	3	2	1
F. I smoke cigarettes automatically without even being aware of it.	5	4	3	2	1
G. I smoke cigarettes to stimulate me, to perk myself up.	5	4	3	2	1
H. Part of the enjoyment of smoking a cigarette comes from the steps I take to light up.	5	4	3	2	1
I. I find cigarettes pleasurable.	5	4	3	2	1
J. When I feel uncomfortable or upset about something, I light up a cigarette.	5	4	3	2	1
K. I am very much aware of the fact when I am not smoking a cigarette.	5	4	3	2	1
L. I light up a cigarette without realizing I still have one burning in the ashtray.	5	4	3	2	1
M. I smoke cigarettes to give me a "lift."	5	4	3	2	1
N. When I smoke a cigarette, part of the enjoyment is watching the smoke as I exhale it.	5	4	3	2	1
O. I want a cigarette most when I am comfortable and relaxed.	5	4	3	2	1
P. When I feel "blue" or want to take my mind off care and worries, I smoke cigarettes.	5	4	3	2	1
Q. I get a real gnawing hunger for a cigarette when I haven't smoked for a while.	5	4	3	2	1

How to score...

1. Enter the number you have circled for each question in the spaces below, putting the number you have circled to question A over line A, to question B over line B, etc.
2. Add the three scores on each line to your totals. For example, the sum of your scores over lines A, G and M gives your score on Stimulation; lines B, H and N gives your score on Handling, etc.

					Totals
<u> </u> A	+	<u> </u> G	+	<u> </u> M	= <u> </u> Stimulation
<u> </u> B	+	<u> </u> H	+	<u> </u> N	= <u> </u> Handling
<u> </u> C	+	<u> </u> I	+	<u> </u> O	= <u> </u> Pleasurable Relaxation
<u> </u> D	+	<u> </u> J	+	<u> </u> P	= <u> </u> Crutch: Tension Reduction
<u> </u> E	+	<u> </u> K	+	<u> </u> Q	= <u> </u> Craving: Psychological Addiction
<u> </u> F	+	<u> </u> L	+	<u> </u> R	= <u> </u> Habit

Scores can vary 3 to 15. Any score 11 or above is high; any score 7 or below is low.

What your score means...

What kind of smoker are you? What do you get out of smoking? What does it do for you? This test is designed to provide you with a score on each of six factors which describe many people's smoking behavior. Your smoking may be characterized by only one of these factors or by a combination of factors. In any event, this test will help you identify what you use smoking for and what kind of satisfaction you think you get from smoking.

The six factors measured by this test describe different ways of experiencing or managing certain kinds of feelings. Three of these feelings/states represent the

positive feelings people get from smoking: a sense of increased energy or stimulation; the satisfaction of handling or manipulating things; and the enhancing of pleasurable feelings accompanying a state of well-being. The fourth is the decreasing of negative feelings by reducing a state of tension or feelings of anxiety, anger, shame, etc. The fifth is a complex pattern of increasing and decreasing "craving" for a cigarette, representing a psychological addiction to smoking. The sixth is habit smoking, which takes place in an absence of feeling; purely automatic smoking.

A score of 11 or above on any factor indicates that this factor is an important source of satisfaction for

you. The higher your score (15 is the highest), the more important a particular factor is in your smoking and the more useful the discussion of that factor can be in your efforts to quit.

A few words of warning: When you give up smoking, you may have to learn to get along without the satisfaction that smoking gives you.

Either that, or you will have to find some more acceptable way of getting this satisfaction. In either case, you need to know just what it is you get out of smoking before you can decide whether to forego the satisfactions it gives you or to find another way to achieve them.

1. Stimulation

If you score high or fairly high on this factor, it means that you are one of those smokers who is stimulated by the cigarette - you feel that it helps wake you up, organize your energies, and keep you going. If you try to give up smoking, you may want a safe substitute: a brisk walk or moderate exercise, for example, whenever you feel the urge to smoke.

2. Handling

Handling things can be satisfying, but there are many ways to keep your hands busy without lighting up or playing with a cigarette. Why not toy with a pen or pencil? Or try doodling. Or play with a coin, a piece of jewelry, or some other harmless object.

There are plastic cigarettes to play with, or you might even use a real cigarette if you can trust yourself not to light it.

3. Accentuation of pleasure - pleasurable relaxation

It is not always easy to find out whether you use the cigarette to feel good, that is, to get real pleasure out of smoking (factor 3) or to keep from feeling so bad (factor 4). About two-thirds of smokers score high or fairly high on accentuation of pleasure, and about half of those also score as high or higher on reduction of negative feelings.

Those who do get real pleasure out of smoking often find that an honest consideration of the harmful effects of their habit is enough to help them quit. They substitute eating, drinking, social activities, and physical activities - within reasonable bounds - and find they do not seriously miss their cigarettes.

4. Reduction of negative feelings or "crutch"

Many smokers use the cigarette as a kind of crutch in moments of stress or discomfort, and on occasion it may work; the cigarette is sometimes used as a tranquilizer. But the heavy smoker, the person who tries

to handle severe personal problems by smoking many times a day, is apt to discover that cigarettes do not help him/her deal with problems effectively.

When it comes to quitting, this kind of smoker may find it easy to stop when everything is going well, but may be tempted to start again in a time of crisis. Again, physical exertion, eating, drinking, or social activity - in moderation - may serve as useful substitutes for cigarettes, even in times of tension. The choice of a substitute depends on what will achieve the same effects without having any appreciable risk.

5. "Craving" or psychological addiction

Quitting smoking is difficult for the person who scores high on the factor of psychological addiction. For this smoker, the craving for the next cigarette begins to build up the moment he puts one out, so tapering off is not likely to work. This smoker must go "cold turkey."

It may be helpful for this smoker to smoke more than usual for a day or two, so that the taste for cigarettes is spoiled, and then isolate themselves completely from cigarettes until the craving is gone. Giving up cigarettes may be so difficult and cause so much discomfort that, once this smoker does quit, he/she will find it easy to resist the temptation to go back to smoking. Otherwise, they know that some day they will have to go through the same agony again.

For the addicted smoker, seeing a doctor might provide extra motivation to stop. The doctor also may suggest nicotine gum (or some other aid) as an alternative source of nicotine while the smoker breaks the habit of smoking.

6. Habit

This kind of smoker is no longer getting much satisfaction from cigarettes. This smoker just lights cigarettes frequently without even realizing he/she is doing so. This smoker may find it easy to quit and stay off if he/she can break the habit patterns that have built up. Cutting down gradually may be quite effective if there is a change in the way the cigarettes are smoked and the conditions under which they are smoked. The key to success is becoming aware of each cigarette you smoke. This can be done by asking yourself, "Do I really want this cigarette?" You may be surprised at how many you do not want.

Test provided by the U.S. Department of Health and Human Services, National Cancer Institute.

The Master of Public Health Program for Arkansas

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Abstract

A unique Master of Public Health (MPH) program has been operating in Arkansas for the past two years. Developed by the faculty of the School of Public Health and Tropical Medicine at Tulane University Medical Center, it offers health professionals the opportunity to earn the MPH degree over a two-year period while remaining in their positions and communities. Most classes are taught on the campus of the University of Arkansas for Medical Sciences (UAMS) in Little Rock. Several courses have been offered by the faculty of the Health Services Administration program and Department of Biology at the University of Arkansas at Little Rock (UALR).

Introduction

Improvements in the quality of life during this century have been attributed largely to primary prevention of diseases through advances in sanitation, hygiene and immunizations.¹ These were accompanied through improved accommodations, better nutrition, and greater education. Understanding the factors responsible for diseases and injuries and learning by the public resulted in behaviors that added both length and quality to lives. Where primary prevention is not feasible, secondary and tertiary prevention measures such as surveillance and aggressive treatment are often effective for control. Nevertheless, many infectious, toxic, and physically injurious agents remain dynamic and powerful threats to health,² and the capacity to combat them is compromised by incomplete and sometimes difficult access to services.³

Yet, graduate education in public health has spread to a rather limited extent among institutions of higher education. Only 28 graduate schools of public health are found in the United States, which leads the world in the number of such schools. Consequently, most public health workers have not entered professional programs in preparation for their positions.⁴ Indeed, most public health agencies are not directed by graduates of public health programs. According to a recent survey of 1,817 responding county and city health units, headed by 1,491 executives, only 22 percent had earned graduate degrees in public health. Only 32 percent were physicians, and 10 percent were physicians with public health degrees. In the south-central states of Arkansas, Louisiana, Oklahoma, and Texas, 16 percent of top state health agency executives had public health degrees, compared to a low of 8 percent in the 7 states immediately north of these south-central states, and a high of 39 percent in 7 south Atlantic states.⁵

An estimate of U.S. epidemiologists in 1985 indicated there were 4,600 active then. More than half were physicians, but barely half of them (28 percent of all epidemiologists) had earned a masters or doctoral degree in public health. Arkansas was among 11 states with less than 7 per million population, compared to the national average of 19.4 per million. However, this estimate omitted epidemiologists who earned neither medical, public health, nor other graduate degrees, which is the case for several in Arkansas. The authors projected between 9,400 and 11,200 would be available by the year 2000, a number judged to fall short of demand, given the growth of prevention efforts and new threats exemplified by HIV transmission.⁶ A 1991 survey of epidemiologists who dealt with events other than communicable diseases (e.g., chronic diseases, injuries, and environmental exposures) found 350. State health agency directors indicated in 1992 that needs for neither information nor personnel are

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met well in 11 broad areas of public health that directors considered important.⁷

One approach to graduate education in the 1970s was financial assistance from the Department of Health for two employees annually to study full time at a school of their choice with the understanding that they would return to the Department upon graduation. Employees left their positions and homes for the year or two required. A stipend for living expenses was furnished in addition to tuition costs. Less than six completed their Masters of Public Health before funding cuts necessitated the program's end. Another model was continuing education in the fundamentals of biostatistics and epidemiology. Supported by federal funds, faculty of the College of Public Health at the University of Oklahoma Health Sciences Center have traveled in a seven-state region to instruct public health agency staff. The project's duration is from August 1992 through October 1997. Among 2,000 participants in the region have been 222 in Arkansas.⁸

Origins of the MPH Program for Arkansas

The Arkansas degree program blossomed from a 1993 affiliation between Tulane and UAMS that sought to draw the two institutions together for purposes of strengthening public health expertise in the Mississippi Delta region of east Arkansas. There, the Delta Health Education Center, begun in 1990 by the Area Health Education Center (AHEC) Program to serve six counties in east Arkansas, was endeavoring to educate the population as well as support health professionals. This meant addressing such matters as health behaviors and environmental risks in addition to health services. The Tulane faculty was experienced with health projects for entire populations, both in Louisiana and outside the US, and recognized their location in the Mississippi River Delta as an avenue for expansion of their students' and faculty's opportunities. The affiliation agreement, signed by Harry P. Ward, MD, for UAMS and by Neal A. Vanselow, MD, for Tulane, named three objectives - recruitment of Tulane students and graduates to Arkansas agencies, encouragement of joint research between Tulane and UAMS faculty, and the start of an MPH program for Arkansas.

Shortly after the agreement was signed, Tulane received a grant from the federal Health Resources and Services Administration to aid in creating an MPH program. The Arkansas MPH Program would be a unique partnership between private and public institutions of higher education located in neighboring states. It would utilize the assets of each. Tulane's assets include a long history of graduate instruction in public health; international as well as domestic experience in community-oriented projects; and particular strengths in community public health disciplines such as health education, administration, communications,

epidemiology, maternal and child health, and environmental sciences. At Tulane, public health studies have been integrated with several other disciplines, including business, law, social work, and medicine. Its joint MD-MPH option for medical students is a popular one. At UAMS, the state's only institution for graduate health sciences, a new "compressed video" network (permitting live, televised classes of students in several sites across the state, all communicating and seeing one another) involving AHECs, hospitals, and schools offers an unusually effective structure for fostering learning across the state. Educating a large proportion of the practicing health professionals, UAMS has a network of graduates, some of whom are potential MPH students. Both institutions utilize Internet communications, and Tulane installed compressed video equipment compatible with UAMS's.

The budget of the federal grant for the MPH Program included partial salaries for faculty and administrative staff at Tulane and UAMS, travel expenses for Tulane faculty to teach in Arkansas, and indirect costs for partial support of classrooms and instructional equipment, library services, and computer accounts. In Arkansas a full-time coordinator for the program was employed, and an adjunct faculty member was supported one day per week to assist with the required field projects. A UAMS medical faculty member was retained to promote the program among the state's medical community in the first year.

The curriculum was based partially on needs crystallized from structured interviews and focus groups of public health officials and university faculty familiar with the state's health issues:

- * health education specific to needs of Arkansas communities,
- * evaluation and development of population-based health efforts, and
- * management of public programs.⁹

Instruction appropriate to these demands was emphasized while touching the five areas of public health expertise (epidemiology, biostatistics, environmental sciences, behavioral studies including education, and public administration). The schedule was designed to accommodate most professionals - classes on alternate Friday afternoons and Saturdays over two years on the UAMS campus in Little Rock. With a single curriculum, some efficiency could be realized by teaching the same courses concurrently to students in successive years of the program.

The Arkansas MPH Program requires a practical project, called a "capstone" experience. Since most students in the program are employed, these may occur where students work. An additional benefit to employers and colleagues, then, is useful results of reports, curricula, and other products of educational, analytical, and managerial skills applied to current

problems.

Comments by prospective students for the second entering group¹⁰ led to adjusting the emphases toward research design and analytical procedures. Comments of later applicants resulted in a new curriculum for the third and subsequent cohorts. It is oriented toward primary health care and has electives for students to develop special interests. They will be encouraged to avail themselves of special strengths found on Arkansas campuses, *e.g.* health promotion at the University of Arkansas at Fayetteville, gerontology and health services administration at UALR, geriatrics and toxicology at UAMS, and health education at the University of Central Arkansas.

Early results

Entering groups of students are called "cohorts," adopting epidemiological language. The first cohort numbered 7 and began in August 1995. The next August, 8 more students enrolled. Professions of the first two cohorts are shown in Table 1. They encompassed a wide range of disciplines. For the cohort entering in 1997, 12 are expected to enroll, including 3 recent college graduates with health education majors, 2 physicians, and 3 nurses. Two physicians at the AHEC in Fort Smith postponed their entry when a colleague resigned. Ethnicity has also been diverse. As shown in Table 2, students' backgrounds have been African American, Middle Eastern, Asian American as well as European American. To date, a few hundred inquiries from prospective MPH students have been counted. From April through July 1997, 120 were counted.

In May 1997 five students of the first cohort graduated with their fellow Tulane students on the New Orleans campus, and the two remaining students plan to graduate by the end of 1997. The first graduates of the Arkansas MPH Program distinguished themselves and their state. Their academic achievement put them in the top quartile of the graduating class, and their capstone projects were recognized as among the most impressive in design and execution. One, an oncology fellow at UAMS, was initiated into the Tulane chapter of the public health honor society, Delta Omega.

The capstone experiences of the first cohort illustrate the useful contributions expected of public health studies. The oncology fellow assembled and tested an educational package for his patients based on their suggestions. The dentist wrote a dental education curriculum for elementary school children and piloted it in a Little Rock public school. One health educator wrote a low-literacy pamphlet promoting breast self-examinations and mammography which will be published by the American Cancer Society. The technologist, at the Veterans Administration Medical Center in Little Rock, scientifically sampled Arkansas women

Table 1: Professions of MPH Students

Profession	First Cohort	Second Cohort
Physician (UAMS fellow)	1	1
Dentist	1	0
USDA Veterinarian	0	1
Pharmacist	0	1
Baccalaureate Nurse	1	1
Respiratory Therapist	1	0
Medical Technologist	1	0
Health Educator	2	0
Psychological Counselor	0	1
Medical Student	0	1
Research Assistant	0	1
Administrative Assistant	0	1
Total Students	7	8

Table 2: Ethnicity of MPH Students

Ethnicity	First Cohort	Second Cohort
Foreign students	2	0
Asian American	1	0
African American	1	0
Japanese American	0	1
European American	3	7
Total Students	7	8

veterans to determine the extent of utilization of cancer screening services. The other health educator led citizens of a rural town with low literacy and employment in addressing health and social issues. The respiratory therapist wrote plans for his department's development of research, professional education, and pediatric asthma statewide.

Current challenges

During planning of this graduate degree program it was assumed that staff of the state's Health Department would comprise the majority of MPH classes. The agency's responsibilities span the spectrum of public health responsibilities for the entire state - food establishment and septic system inspections; milk purity; potable water quality; radiation control; medical facilities certification and health professions distribution; oversight of pharmaceutical services; a third of prenatal care provided in the state; child health care; immunizations; communicable disease control; Supplemental Nutrition Program for Women, Infants and Children (WIC); family planning; nutrition counseling; health education; surveillance of notifiable diseases and injuries; maintenance of vital records; and publication of health statistics. Approximately 3,000 Department of Health employees carry out these tasks in more than a hundred offices, while an estimated 0.5 percent have earned graduate degrees in public health. Yet, none of the MPH candidates in the first three cohorts are health department employees, although an estimated 45 have inquired. Two reasons most often cited are inability to afford tuition (approximately

\$6,000 per year) and absence of incentives for graduate education (such as increased salary or promotion to a higher position).

Low levels of graduate education among public health personnel is not unusual. This was noted in the Institute of Medicine's 1988 report.³ So huge was the need for graduate education, indeed, that the Institute acknowledged the inability of the nation's schools of public health to meet it. Rather, a recommendation in the report was that university departments and programs with related expertise be engaged in such instruction. Another recommendation of the IOM report was more interaction between schools of public health and departments of public health. Sustained activities have resulted from the charge that schools had become remote from public health practice.¹¹

Leadership training has been embraced by the Arkansas Department of Health through its participation in a multi-state program, the South Central Public Health Leadership Institute. State public health agencies in Arkansas, Louisiana, Mississippi, and Alabama each devote funds and select middle- to upper-management staff to year-long classes led by faculty of the Tulane School of Public Health and Tropical Medicine. The Institute began in 1995, the year in which the same faculty started the MPH Program for Arkansas. The leadership sessions typically consider communications, leadership skills, core functions of public health agencies, community relations, and public health trends. Participants complete projects that illustrate imaginative applications of resources to current public health issues. Tulane now grants 3 credits toward the MPH degree to graduates of the Institute. The leadership competencies covered in the Institute complement the core contents of epidemiology and biostatistics, environmental health, behavioral sciences and management, learned in the MPH Program. Mutual contributions are expected between the leadership institute and the MPH Program as graduates of each become involved in the other.

Enrollment of a third-year medical student in the second cohort illustrates opportunities as well as difficulties. With counsel of the College of Medicine Associate Dean, the student has been able to mesh schedules of the MD and MPH programs. Double tuition payments to Tulane and UAMS, however, have pushed his financial borrowing capacity to the limit. Some accommodation between the universities may be necessary for future medical students.

Other opportunities lie in offering the MPH program as an option in connection with medical residencies. A UAMS medical oncology fellow was in the first cohort. In the third cohort, there will be a geriatrics resident from UAMS, whose enrollment is supported by her department. Such skills as research design, statistical interpretations, epidemiological in-

sights, and health program evaluation will serve rising leaders of academic medicine and managed care especially well. One proposal has been for residents to commence the MPH Program during their final year and to complete it during an additional year, with perhaps an appointment as a "fellow" in the department.

Introduction of compressed video technology was initially met with resistance by students. Real time, interactive transmissions were tried on three occasions during the second year. Disappointed by loss of personal contact with professors and suspicious of financial motives, the students expressed misgivings. Their discontent was fueled by transmission failures on two occasions that could not be fixed quickly. Despite avoiding travel and accommodation expenses of faculty from New Orleans to Little Rock, use of compressed video has been more expensive due to transmission fees and technicians' overtime. The expenses, coupled with students' dissatisfaction, led to elimination of the technology for cohort 2. Compressed video can still be a great advantage to the program by enabling greater participation of Tulane faculty in the Arkansas MPH Program, since they can teach and advise more when they are not required to travel for a day (round trip). Further, since 50 or more sites are linked to the compressed video system around the state, less travel time could be required of students who live some distance from Little Rock. It is also possible to transmit thousand of miles, opening an international educational market to this unique program.

Discussion

The affiliation entered by Tulane and UAMS in 1993 is unusual in that it joins a distinguished, private institution of higher learning with a public campus in a neighboring state charged by its legislature with preparation of physicians, nurses, pharmacists, and other health professionals. One disadvantage of this private-public relation is that it apparently blocks access to public funds available through a consortium of regional, public institutions. Through this mechanism, such health professionals as dentists and veterinarians, for whom training is not available in Arkansas, are educated for practice in the state. State funds partially underwrite tuition for Arkansas students who attend other public institutions in the region.

An advantage of the affiliation with Tulane is the enrichment of resources available to UAMS and the state. One of these resources is experience in tapping sources of support for health professions education. A large university, Tulane turns out as many from its MPH program as UAMS graduates from the College of Medicine. To accomplish this, Tulane has become adept at finding and serving the needs of its various communities, *e.g.* basic and applied research, neighborhoods' educational and health projects, and inter-

national opportunities for program development, evaluation, and consultation.

An ambition to create an MPH program in the University of Arkansas College of Education arose a decade ago, but the effort became dormant. Recently, discussions have been renewed, this time utilizing resources on several Arkansas campuses. This effort could benefit greatly from the resources of Tulane, whose faculty leadership has encouraged such a program. It would build on unusual riches found in Arkansas but not fully exploited, e.g., research and graduate studies in health education, administration, and toxicology as well as in medicine and related fields of practice. Gerontology and outcomes research are growing fields of promise.

The advantages of retaining Arkansas professionals in the state and offering a complete curriculum recommend this approach. Financing employees to study on distant campuses yielded very few graduates in the 1970s, perhaps due to the inconvenience of leaving home for a year or more. The expense of this approach also severely limited the number permitted to participate. Continuing education courses are essential, but they are limited in scope. Continuing education is more appropriate following basic instruction rather than as a substitute for it.

Addressing two primary obstacles to participation by public health agency staff will help build the MPH program as well as public health practice. Tulane tuition is actually near the median among schools of public health in the US, and total expenses for this MPH program are considerably less than what is required for leaving the state for a year or longer. Even for those who can afford the commitment, the expense in effort and money may be a questionable investment without professional rewards. At the Arkansas Department of Health there are efforts to develop both monetary and non-monetary incentives to encourage participation.

Thus far, demand in the academic and health care sectors has supported this flexible and practical graduate program in public health. In fact, many American graduates are found in the private sector and in federal agencies. About 6 to 8 percent go on to doctoral programs and ultimately are employed in academic settings. Some go to international assignments, particularly the Peace Corps. Not only traditional educational, analytic, and administrative roles are needed, but also new roles are evolving as managed care and competition increase among health care organizations. Education and motivation of patients to remain healthy and to access appropriate services have become urgently important.¹² Defining service areas (markets) has become more sophisticated and comprehensive, requiring higher levels of skills for data collection, analysis and interpretation. Further, public health

practices, founded in traditions of social justice, promise a robust arsenal for attending to quality of life and health outcomes while health care is so much driven by the pursuit of efficiencies.

The Tulane MPH Program for Arkansas addresses needs for better equipped public health professionals that are national in scope.¹³ It represents opportunities for improving community health through greater knowledge and sharper skills of those who contribute to public policy, administer health programs, and supply useful information to individuals. Such a result might be enhanced many fold if partnerships of academic, governmental, and commercial entities are cultivated with a public health orientation. Some suggest this is a moment to seize for moving our complex health system forward and together.¹⁴ In the milieu created by public health education, research, and service, this might soon be the case in Arkansas.

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Medicaid HCQIP Project on Thyroid Testing

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Thyroid disorders are a common presentation in primary care. Many patients acquire hypothyroidism from idiopathic conditions or as a side effect of the treatment of Grave's disease. Monitoring long-term levothyroxine use is part and parcel of an active primary care practice.

Likewise, hyperthyroidism is not uncommon and is frequently detected in the office setting. Many primary care physicians oversee the ablation of overactive thyroid glands in conjunction with nuclear medicine personnel with or without endocrinologic consultation.

A variety of thyroid tests can be performed on these patients; appropriate use of these tests can be confusing. In earlier years the T_3 resin uptake test caused considerable confusion as to what it measured and its role in diagnostic testing. Many physicians order a battery of thyroid tests. As seen in Table 1, combination testing is common. Some of the test combinations we have found in the Medicaid dataset are redundant and supply information that could be provided by a single test.

In recent years the TSH assay has become much more sensitive. It is the single test most effective in monitoring therapy for hypothyroidism. It is now also an excellent screening test for hyperthyroidism. The medical literature now substantiates a test ordering strategy which uses a TSH as the single screening test for thyroid disorders (See Figure 1). If the TSH is within normal limits there is no need for further testing.

In undiagnosed patients who have abnormal TSH values, measurement of a free T_4 (FT_4) or the classic T_4

combination (total T_4 plus T_3 resin uptake) could be warranted. There are few confounding conditions with the FT_4 and it is less expensive than the T_4 - T_3 RU combination. Delineation of a hyperthyroid state would then require a radioisotope uptake scan to better delineate the nature of the thyroid condition.

Monitoring of existent hypothyroidism can be accomplished by a TSH alone. High TSH levels require an upward adjustment of levothyroxine dose. Low TSH levels necessitate a dose reduction to avoid long term osteoporosis and iatrogenic hyperthyroidism. Repeat TSH measurements should not occur until 4-8 weeks after a levothyroxine dose adjustment. Once the appropriate dose of thyroid medication is determined, a TSH need only be monitored on a yearly basis.

Some practitioners in Arkansas use desiccated thyroid or T_3 preparations to treat hypothyroidism. Most textbooks and experts recommend the use of levothyroxine (T_4) since desiccated thyroid can have variable biologic availability. Use of a T_3 compound is unnecessary, as the body will convert synthetic T_4 (levothyroxine) to T_3 in the course of normal metabolism.

Efficient use of laboratory testing for thyroid disease could save the Medicaid program close to \$100,000 a year. Use of the algorithm (Figure 1) on the following page could assist primary care physicians in protecting their managed care risk pool without sacrificing diagnostic accuracy in the care of their patients.

Conclusions:

The TSH assay should be used alone in initial screening for thyroid disease. Switching to this diagnostic strategy could save thousands of dollars for the Medicaid program and for office-based, managed care practices.

Levothyroxine, as opposed to other preparations of thyroid hormone, is the most effective and efficient medication for thyroid replacement. Shifting to

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levothyroxine is in keeping with current clinical practice and can produce more reliable and consistent thyroid hormone replacement.

Long-term monitoring of stable hypothyroid patients should be accomplished by an annual TSH measurement.

Suggestions:

Primary care physicians are encouraged to review their laboratory ordering practices for thyroid management and discuss strategy with their office personnel in the routine care of patients with acute or chronic thyroid disorders.

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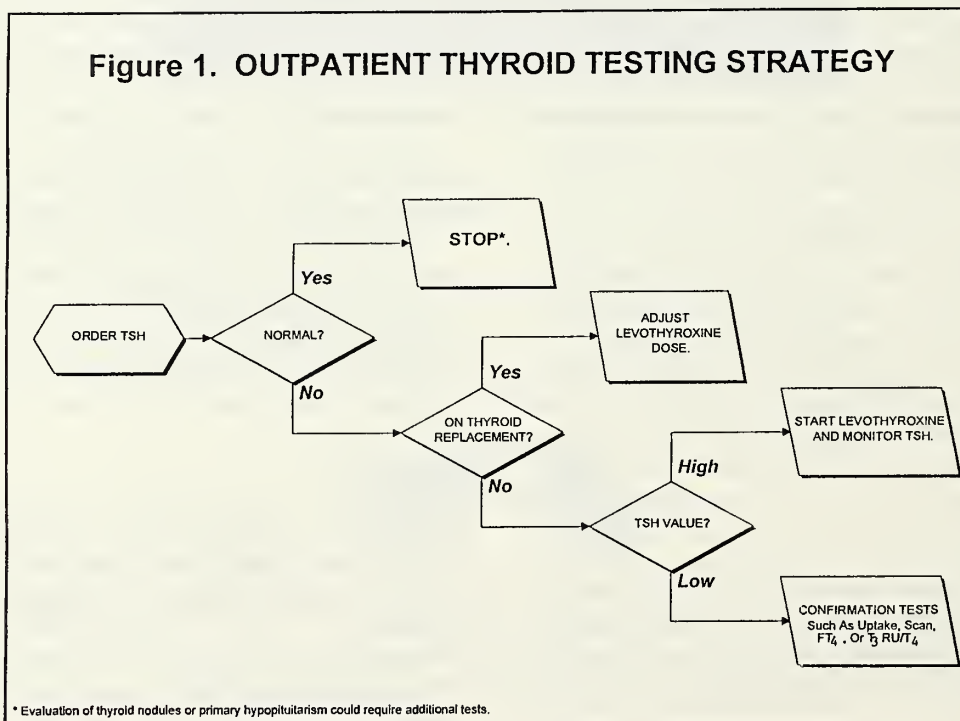
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Table 1.
Most Commonly Ordered Thyroid Tests
Medicaid Claims Data 1/96-6/96

TESTS	NUMBER OF EPISODES
T ₄ /T ₃ RU/TSH	1146 (22.9%)
TSH	1055 (21.1%)
T ₄ /T ₃ RU	1010 (20.2%)
T ₄ /TSH	688 (13.7%)
T ₄	455 (9.1%)
FT ₄ /TSH	324 (6.5%)
FT ₄	54 (1.1%)
T ₃ RU	42 (0.8%)
FT ₄ /T ₄ /TSH	39 (0.8%)
35 Other Testing Combinations	197 (3.9%)
TOTAL	5010

Figure 1. OUTPATIENT THYROID TESTING STRATEGY



Aplastic Crisis Associated with Parvovirus B19 in an Adult with Hereditary Spherocytosis

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Abstract

Parvovirus B19 is usually associated with an acute, self-limited disease in children. In patients with a congenital hemolytic anemia, infection with this virus can cause an aplastic crisis. We describe such a crisis in an adult with asymptomatic hereditary spherocytosis.

The association between acute red blood cell aplasia and infection with parvovirus B19 is well described in patients with hereditary hemolytic anemia, particularly sickle cell anemia. This association has also been described, although less frequently, in patients with other inherited hemolytic diseases, such as hereditary spherocytosis. In children, human parvovirus B19 causes an acute self-limited illness known as erythema infectiosum (fifth disease). In immunocompromised individuals, chronic infections can occur and cause a severe, persistent anemia.¹ In pregnant women, infection can, but usually does not, lead to fetal infection. An infected fetus can have severe anemia, congestive heart failure, generalized edema (fetal hydrops) and even death.^{2,3} Most cases of aplastic crises associated with parvovirus B19 in patients with hereditary spherocytosis have been reported in children and adolescents. In this paper we describe an aplastic crisis in a 28 year old man with asymptomatic hereditary spherocytosis.

Case Report

BJ is a 28 year old man who was diagnosed as having hereditary spherocytosis when he underwent a cholecystectomy in 1987. He had been healthy all his life and knew of no family members who were affected. His grandfather had died at a young age and he has a sister who also had gallstones. He has led a normal life. After being discharged from the Navy he went to college at Memphis State and currently teaches physics and computer science to high school students. He had no history of recent travel and no family members or coworkers had been ill. Approximately two weeks before his admission he began to have leg pain and fatigue. The pain then became more diffuse. He was seen at a local emergency department and given flu-

ids. His initial hemoglobin and hematocrit were 14.6 and 39.3. The pain continued and two days later he was hospitalized and given steroids. At that time his hematocrit had fallen to 27. After discharge, the pain resolved but he began to have fever as high as 103 and on follow-up six days later his hematocrit had fallen to 20.1. His peripheral smear during the hospitalization showed spherocytes and the osmotic fragility test was positive. In addition to the anemia he had leukocytosis and thrombocytosis, and a corrected reticulocyte count of zero. After transfusion his hematocrit was 24.0. He continued to have fatigue, fever and occasional headache, which he treated with acetaminophen or ibuprofen. He was referred by a friend to our hospital.

His physical exam was normal, with the exception of a resting tachycardia and hyperdynamic precordium. His liver and spleen were not enlarged and there was no lymphadenopathy. He had no localizing symptoms or fever. A complete blood count showed a white blood cell count of 9.4, hemoglobin 6.7, hematocrit 19.4 and platelets 146. The reticulocyte count was 4.2, bilirubin 2.4 and creatine kinase 22. Electrolytes, blood urea nitrogen and creatinine were normal as was a chest x-ray. He was admitted to the hospital 17 days after the onset of his illness.

By the morning after admission his hemoglobin and hematocrit had fallen to 5.5 and 15.7. The erythrocyte sedimentation rate was 60, Coombs' test negative, osmotic fragility test positive. He was given two units of packed red blood cells and a bone marrow aspirate and biopsy were done. These showed a hypercellular marrow with marked erythroid hyperplasia and increased pronormoblasts and normoblasts. He remained afebrile, but was started on doxycycline as the housestaff had gotten a history of a tick bite several weeks prior. His hematocrit rose to 22.5 and he was discharged on hospital day three. Human parvovirus B19 serology was pending at the time of discharge. One week later his hemoglobin and hematocrit had risen to 9.7 and 28.7, with a reticulocyte count of 14.8 and a resolution of the mild thrombocytopenia. Human parvovirus B19 IgM and IgG were both positive.

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Discussion

Human parvovirus B19 was first described in 1975.⁴ Cossart and colleagues were screening asymptomatic blood donors for evidence of hepatitis B and isolated the virus in a specimen encoded "B19." The association of this virus with several diseases in humans is now well-documented. Erythema infectiosum (fifth disease), is an acute, self-limited illness in children.⁵⁻⁷ Parvovirus B19 also causes an acute arthritis and reactive arthropathy in adults.⁸⁻¹⁰ Transplacental-intrauterine infection may occur and can rarely be a cause of fetal death.^{2,3} The association of this virus with aplastic crises in people with underlying abnormalities of red blood cells is also well known. In 1948, the Norwegian hematologist Paul A. Owren revolutionized the concept of the so-called hemolytic crisis. He suggested that "crises are not due to increased hemolysis, but to a sudden cessation in formation of the new red cells because of acute aplastic crisis in the blood forming tissue of the bone marrow." He also suggested that "they (crises) can be produced by some extraneous reason, possibly infection."¹¹

More than thirty years later, parvovirus B19 was first associated with aplastic crisis in a hemolytic disorder (sickle cell disease), in 1981.¹² Most of the cases reported have been in patients with sickle cell disease. Such crises have also been described, although much less commonly, in patients with hereditary spherocytosis, and most of these have been in children.¹³ Such crises have also been reported as an initial presentation of hereditary spherocytosis.¹⁴

Human parvovirus B19 inhibits erythropoiesis and leads to acute erythroblastopenia and reticulocytopenia.¹³ Healthy subjects probably develop this to some degree when infected with the virus, but the normal erythrocyte life span in these people prevents them from becoming significantly anemic. In conditions such as hereditary spherocytosis, the shortened life span of the erythrocytes can lead to a profound anemia if erythropoiesis is interrupted. Parvovirus B19 infection may also be associated with persistent bone marrow failure. This was first reported in 1987, when a case of pure red cell aplasia, acquired at age 14 years, was reported with evidence suggestive of persistence of B19 virus for more than ten years.¹⁵ It was also reported that such patients can be cured with immunoglobulin therapy.¹⁶

The patient described here has mild hereditary spherocytosis and had never had significant problems with anemia. He did have bilirubin gallstones, a very common finding in these patients. Review of his records from the military showed that at one point his hematocrit was as low as 33, and splenectomy was considered. However, this drop in hematocrit was transient and he thereafter maintained a hematocrit in the high 30's.

The typical clinical picture of infection with parvovirus B19 and a subsequent aplastic crisis is one of fever, headache, myalgias, and abdominal pain. A

rash is generally not present. The average length of time between the onset of the infection and the aplastic crisis is generally believed to be eight to ten days. The interval between onset of symptoms and reappearance of reticulocytes in peripheral blood ranges from five to twenty days, with a peak at day eleven.⁶ This typical time course was seen in our patient.

Conclusion

The majority of aplastic crises seen in patients with hereditary spherocytosis are in children. In some instances, the diagnosis of hereditary spherocytosis was unknown until the aplastic crisis occurred.^{12,13} Most affected patients develop a profound anemia and require transfusion. Infection is felt to confer life-long immunity.

In this case report we describe a healthy young man who had asymptomatic hereditary spherocytosis. He had an acute aplastic crisis associated with human parvovirus B19. It is important to recognize this association, as transfusion is usually required, and isolation, particularly from female caretakers, should be practiced. Although the risk to the developing fetus is small, infection can be devastating.

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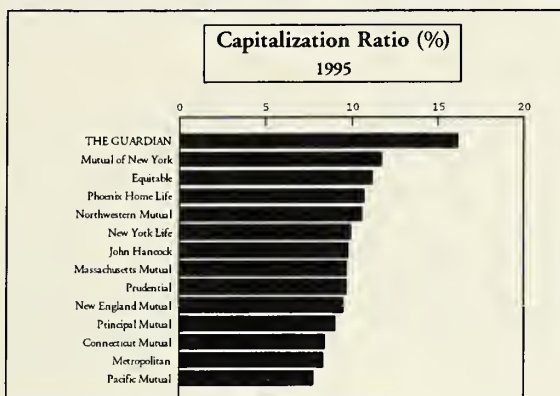
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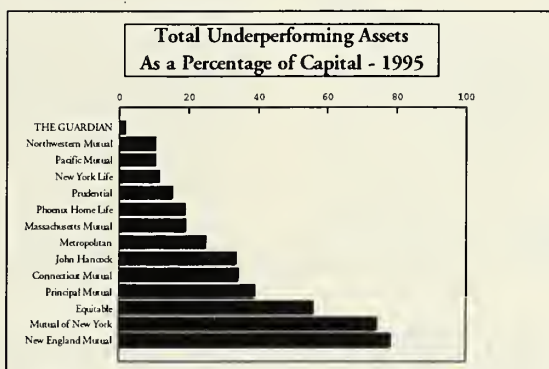


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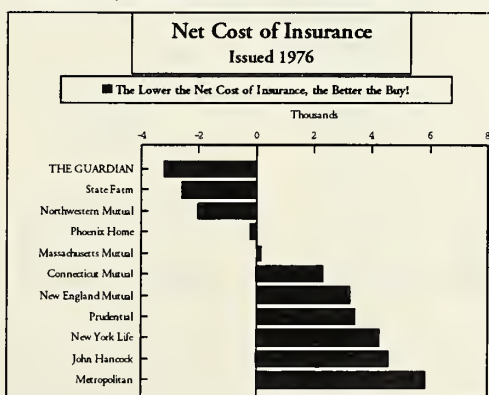
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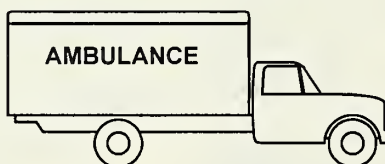
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Pleurodynia and Myopericarditis

Pericarditis typically is of a viral etiology with a peak incidence in the summer. Recently, a patient was admitted to the Cardiology Service at UAMS with exquisite chest tenderness and probably pleurodynia and myopericarditis. His presentation and hospital course are presented.

Patient Report

Chief Complaint and History of the Present Illness: A 24 year-old male presented with a three day history of progressive chest discomfort (see Complete Problem List, Table 1). The pain was sharp, stabbing, pleuritic, constant, associated with mild shortness of breath, and exacerbated when eating spicy food (Mexican lasagna) and sitting upright. The pain was not relieved with over-the-counter analgesics or sublingual nitroglycerin. There was no known fever, nausea,

emesis, or association with individuals with a similar malady. There was no personal or familial history of cardiac disease. The patient did not smoke cigarettes.

There was no history of diabetes mellitus or systemic arterial hypertension and his cholesterol status was unknown.

Physical Examination: The patient was a healthy male in moderate distress. He was afebrile and the blood pressure was 93/66 mmHg. The anterior chest wall was exquisitely tender to touch, and the patient could not tolerate the mere weight of the stethoscope to auscultate the lungs or heart. The remainder of the physical examination was normal.

Laboratory Examination: The electrocardiogram (ECG) showed normal sinus rhythm, rate 70 beats/minute, and T wave inversion in the anterior and

inferior-lateral leads (Figure 1). The initial creatine kinase (CK) was 14,009 U/L (normal 30-260). The chest x-ray and remainder of the laboratory examination were normal.

Hospital Course: Intravenous fluids supplemented with sodium bicarbonate were begun to prevent rhabdomyolysis. Nonsteroidal anti-inflammatory agents were begun as treatment of the chest discomfort. The CK peaked at 20,178 U/L and had fallen to 13,902 U/L by the time of discharge from the hospital. An echocardiogram showed a minimal pericardial effusion with normal chamber and valvular structure and function. The ECG at the time of discharge from the hospital showed nearly complete resolution of the repolarization abnormalities. The results of acute and convalesce viral titers for Coxsackie A, B, and echovirus are pending.

Discussion

The patient presented with *pleurodynia* and presumptive *myopericarditis*. *Pleurodynia*, also known as epidemic pleurodynia, Bornholm's disease, or "devil's grip" was first described in the late 1800s. *Pleurodynia* is a syndrome associated with the abrupt onset of extremely severe chest pain usually accompanied by fever. The chest pain may be on either side of the anterior chest wall or substernal. There may also be malaise, headache, and anorexia. The pain is worse with movement. Diaphragmatic involvement may cause abdominal pain mimicking an acute abdominal catastrophe. The illness itself self-limited and recovery is complete, although relapses are common. As the name implies, pleurodynia often occurs in the epidemics.¹

Pleurodynia and myopericarditis are most commonly due to an infection with picornavirus [small ribonucleic acid (RNA) virus] family, especially enterovirus. Of the enterovirus, coxsackie B ("B" for body) is the most common etiology. Coxsackie virus was named after the town of Coxsackie, New York, where isolation of the virus was first made. Sporadic occurrences of pleurodynia may also be due to other enteroviruses including Coxsackie A and echovirus.

Table 1: Complete Problem List

1. Chest discomfort of uncertain etiology → probable pleurodynia and myopericarditis
2. Prior trauma →
 - a. Motor vehicle accident, 1993
3. Prior surgery →
 - a. Knee surgery, 1967

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Table 2: Electrocardiographic Changes in Acute Pericarditis*

Stage	J-ST**	T Waves	PR Segment
I	Elevated	Upright	Depressed or isoelectric
II (early)	Isoelectric	Upright	Isoelectric or depressed
II (late)	Isoelectric	Low, flat, or inverted	Isoelectric or depressed
III	Isoelectric	Inverted	Isoelectric
IV	Isoelectric	Upright	Isoelectric

Notes: * Modified from: Sponick DH. Electrocardiogram in acute pericarditis: Distributions of morphologic and axial changes by stages. *Am J Cardiol* 1974;33:470-474.

** J-ST = junction of S (or T) wave with the end of the QRS complex.

Myopericarditis. Coxsackie B infection of the myocardium and surrounding pericardium is the common etiology of myopericarditis and results in a wide spectrum of constitutional and cardiac manifestations. Systemic signs include fever, malaise, headache, and anorexia. Viral infection of the conduction system may cause arrhythmias, heart block, and sudden death. Infection of the myofibrils may result in chamber enlargement and congestive heart failure. A pericardial effusion is due to inflammation of the pericardium. The disease occurs more commonly in males and the pain and ECG abnormalities may mimic myocardial infarction.

Laboratory abnormalities include cardiac enzyme elevation, as was seen our patient, and cardiac enlargement on the chest x-ray. Echocardiography may demonstrate a pericardial effusion, but it may also reveal chamber enlargement and left ventricular systolic dysfunction. A diagnosis is confirmed by isolation of the virus from blood or urine or from throat or rectal swabs. The presence of the virus may be confirmed with the use of acute and convalescent sera.

The etiology, diagnosis, and management of pericarditis. The etiology of pericarditis is typically obscure. A recent report of 100 consecutive patients showed that investigation for a specific etiology should be limited to the subgroup of patients with complicated acute pericarditis, defined as having cardiac tamponade, fever, significant pericardial effusion, or illness lasting for more than seven to ten days despite aspirin therapy. Almost 90% of patients with a specific etiology had cardiac tamponade or an unfavorable clinical outcome.²

Serial ECG changes are extremely helpful in confirming the diagnosis of myopericarditis. There are four stages of ECG evolution of acute pericarditis (Table 2).³ These changes relate to abnormalities of ST segment and T waves which are related to an epicardial injury current occurring along the superficial myocardial and epicardial regions. Figure 1 shows diffuse repolarization abnormalities with deep T wave inversion in the anterior, inferior, and lateral leads consistent with acute pericarditis (Stage III).

The first step in management of pericarditis is diagnostic: to determine if the etiology is systemic or localized. Conservative therapy for all etiologies include bed rest until the pain and fever have resolved

and the use of a nonsteroidal anti-inflammatory agent such as aspirin and indomethacin. Corticosteroids may be used for severe pain which does not respond to more conservative measures within forty-eight hours. Oral medications should be included for five to seven days after the patient is asymptomatic. Antibiotics should be reserved for purulent pericarditis. Anticoagulation therapy is contra-indicated due to the possible development of a pericardial effusion with pressure. Patients with complicated pericarditis (cardiac tamponade, fever, significant pericardial effusion, or illness lasting for more than seven to ten days with aspirin therapy) are candidates for pericardiocentesis or surgical biopsy and drainage under local anesthesia. Relapsing pericarditis occurs in approximately 25% of patients which may respond to treatment with colchicine.⁴

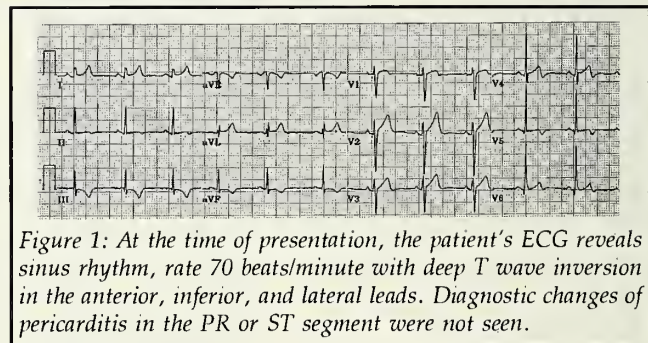


Figure 1: At the time of presentation, the patient's ECG reveals sinus rhythm, rate 70 beats/minute with deep T wave inversion in the anterior, inferior, and lateral leads. Diagnostic changes of pericarditis in the PR or ST segment were not seen.

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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Reported Cases of Selected Diseases in Arkansas Profile for June 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases June 1997	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	18	72	91	241	78	153
Giardiasis	17	79	56	182	49	131
Shigellosis	46	107	39	176	62	176
Salmonellosis	63	137	152	455	110	338
Hepatitis A	9	132	264	500	190	663
Hepatitis B	4	31	47	93	34	83
Hepatitis C	0	0	4	7	NR	NR
HIB	0	0	0	0	0	1
Meningococcal Infections	0	24	26	35	24	39
Viral Meningitis	1	11	11	38	13	33
Ehrlichiosis	5	8	5	7	10	14
Lyme Disease	7	13	22	27	7	12
Rocky Mountain Spotted Fever	4	10	9	22	11	31
Tularemia	6	15	13	24	16	22
Measles	0	0	0	0	2	2
Mumps	0	0	0	1	5	6
Gonorrhea	***	***	***	5050	2532	5437
Syphilis	***	***	***	706	826	1017
Legionellosis	0	0	1	1	5	8
Pertussis	2	6	3	14	27	59
Tuberculosis	20	100	108	225	106	271

*** Data not available NR Not reportable

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893 during normal business hours.

In Memoriam

Joseph A. Buchman, M.D.

Dr. Joseph A. Buchman of Little Rock died Tuesday, July 22, 1997. He was 84. He is survived by his wife Bobbie; children, Dr. J.K. Buchman, Babs Steward and Roberta Amley.

Arthur F. Moore, M.D.

Dr. Arthur F. Moore of Fayetteville died Friday, July 4, 1997. He was 72. He is survived by his wife, Theresa Hardesty Moore; two sons, Dr. Dwight Moore of Emporia, Kansas, and Douglas Moore of Fayetteville; three daughters, Debbie Daily and Donna Gardner of Fayetteville and Dr. Deedee Moore DVM of Rogers; four grandchildren; and two stepgrandchildren.

George Herschel Wright, M.D.

Dr. George Herschel Wright of Hope died Tuesday, June 24, 1997. He was 84. He is survived by his wife of 36 years, Claire Rebecca Armstrong Wright; one daughter, Judy Kay Walter and Tim of Texarkana, Texas; three sons, George H. Wright, Jr. and Jan of Hope, Larry D. Wright, M.D., and Gin of Rogers, and William Randal Wright and Nan of Hope; one sister, Lena Mae Hutt of Fouke; ten grandchildren and two great-grandchildren.

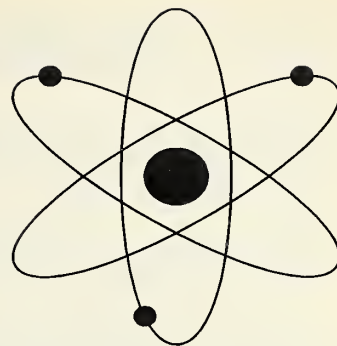


Radiological Case of the Month

David L. Harshfield, M.D., Editor

Authors

Mary Groves, M.D.
David L. Harshfield, M.D.



History:

Case 1: 39-year-old white female presents with 2 week history of sinus drainage and cough productive of dark green mucous. Now with malaise, frontal headache, pressure over maxillar area. No history of fever.



Figure 1

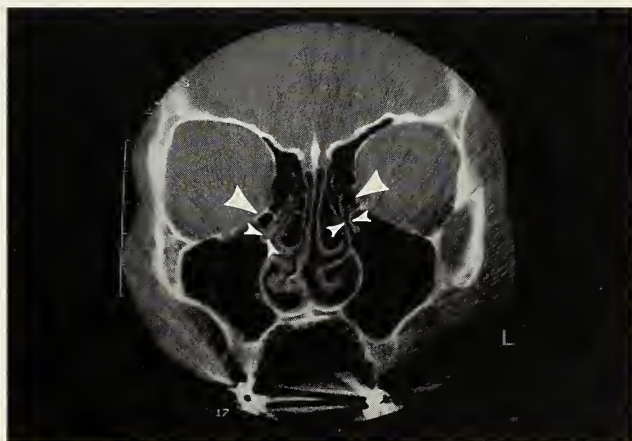


Figure 2

Figure 1: There is right nasal septal deviation with an inferior bony spur attached to the right inferior turbinate (large arrowhead). There is pneumatization of the middle turbinates (choncha bullosa formation-small arrowheads) bilaterally, producing vertically oriented and narrowed infundibula (arrows). The antero-inferior ethmoid air cells are creating further infundibular encroachment (large arrowheads in figure 2). There is mucosal thickening of the anterior ethmoid air cells, infundibula, and maxillary sinuses bilaterally. There are air-fluid levels in both maxillary sinuses.

Figure 2: One month later, there has been considerable resolution of the sinusitis, with persistent mucosal thickening of the right osteo-meatal unit (small arrowheads depicting the right maxillary sinus ostium). The left maxillary sinus ostium, infundibulum (small arrowheads on patient's left), and hiatus semilunaris, which comprise the osteo-meatal unit (OMU), are clear. Aside from mild mucosal thickening of the right maxillary antrum, the sinuses are clear.

Sinusitis Osteo-meatal Unit (OMU) Disease

Diagnosis: Bilateral Osteo-meatal Unit (OMU) Disease secondary to congenital narrowing of the maxillary outflow tracts (Infundibula) by hyperaerated antero-inferior ethmoid air cells laterally, and hyperaerated middle turbinates (concha bullosa) medially.

Normal Anatomy: To understand the pathogenesis of sinusitis, it is important to know the anatomy and normal mucociliary clearance pathways of the paranasal sinuses.

The best understood of these drainage pathways is the osteo-meatal unit (OMU) which includes the maxillary sinus ostium, infundibulum, uncinate process, ethmoidal bulla, hiatus semilunaris, middle meatus and turbinate. The middle meatus serves as the final common pathway for the ipsilateral maxillary sinus, frontal sinus, anterior and middle ethmoid air cells.

The cilia of the maxillary sinus propel the mucus stream in a starlike pattern from the floor of the maxillary sinus toward the ostium situated superomedially. From the Maxillary ostium, mucus from the maxillary antrum gets swept superiorly through the infundibulum, located lateral to the uncinate process and medial to the inferomedial border of the orbit. Posterior to the uncinate process, at the termination of the infundibulum, mucus is propelled to the hiatus semilunaris, an air filled space just anterior and inferior to the largest antero-inferior ethmoid air cell, the ethmoidal bulla. The mucus is then passed posteromedially via the middle meatus, a channel passing medial and superior to the uncinate process, into the back of the nasal cavity to the nasopharynx, where it is subsequently swallowed.

The frontal sinus mucus drains inferomedially through the nasofrontal duct. The term nasofrontal duct has been replaced with the term frontoethmoidal recess since a true circular duct is usually not present and since frontoethmoidal recess connotes the common drainage of the frontal sinuses and anterior ethmoidal sinuses. The frontoethmoidal recess is the space between the inferomedial frontal sinus and the anterior middle meatus and usually communicates directly with the middle meatus.

The anterior ethmoid complex lies anterior to the basal lamella, the lateral attachment of the middle turbinate with the lamina papyracea. The middle ethmoid air cells usually drain through the ethmoidal bulla into either the infundibulum laterally or middle meatus medially. Agger nasi cells, the anteriormost ethmoid cells, located in front of the attachment of the middle turbinate to the cribriform plate, form the anterior portion of the frontoethmoidal recess and are present in over 90% of patients. Another set of anterior ethmoid cells that are variably present in patients are the supraorbital ethmoid cells. These are important to identify as these are difficult to access through the endoscope because of their superolateral location and proximity to the orbit. The sinus lateralis a part of the anterior ethmoid complex that lies between the basal lamella and ethmoidal bulla may drain either into the frontoethmoidal recess or directly into the middle meatus.

The posterior ethmoid air cells drain through multiple ostia into the superior meatus, then into the sphenoethmoidal recess and finally into the nasopharynx. The sphenoid sinus drains directly into the sphenoethmoidal recess then the nasopharynx.

Anatomic Variations: One of the most common variants of the paranasal sinuses is septal deviation (as seen in this patient). Septal deviation represents a divergence of the septum from the midline, with associated deformities or significant asymmetry of any or all of the adjacent conchae and nasal wall structures. These deviations, congenital or acquired, can narrow the middle meatus and contribute to the obstruction of the OMU. There can also be a bony spur in association with the deviation that can cause further obstruction (as described in figures). Bridging spurs in which the spur abutts the adjacent lateral nasal wall are frequently associated with hypoplasia of the adjacent middle turbinate and accessory ostia of the adjacent sinus.

Pneumatization of the middle turbinate or concha bullosa, when large can obstruct the middle meatus (this variant is present in this patient). If inflammation causes it to become filled with fluid, it is termed a complicated concha bullosa.

A paradoxical curved middle turbinate is another anatomical variant that can lead to obstruction and problems with drainage. A paradoxical curve is one in which the middle turbinate curves medially instead of laterally. This can obstruct the middle meatus if it becomes large.

The uncinate process can also contribute to obstruction. Lateral deviation of the superior process may obstruct the distal infundibulum and hiatus semilunaris. The tip can also be apposed to the medial orbital wall totally blocking the normal pathway. If the tip is deviated medially, the middle meatus can be obstructed. Pneumatization of the uncinate process can also occur and if large enough will encroach upon either the middle meatus, hiatus semilunaris or ethmoidal bulla.

There are several normal variations of the ethmoidal bulla that can obstruct the OMU. When enlarged, the ethmoidal bulla can obstruct the ipsilateral infundibulum and hiatus semilunaris causing problems with the drainage pathways for the maxillary and anterior ethmoid sinuses. Anterior ethmoid cells located inferolateral to the bulla along the inferior margin of the maxillary sinus are termed Haller cells or maxoethmoidal cells (this variant is present in this

patient). If these cells become greatly enlarged, they can obstruct the infundibulum or maxillary sinus ostium. Supraorbital ethmoid air cells, extensions of the ethmoid air cells projecting above the orbit usually do not cause obstruction but can become infected and are difficult to visualize during endoscopy.

Discussion: Sinonasal inflammatory disease is a common health problem in the United States. It is estimated that over 31,000,000 Americans are affected annually and approximately 16,000,000 visits are made to primary care physicians each year for sinusitis and its complications. Adults average two to three colds per year and 0.5% of viral upper respiratory infections are complicated by sinusitis. Americans spend millions of dollars annually on sinus medications and eventually more than 100,000 of these patients undergo functional endoscopic sinus surgery (FESS) for recurrent symptoms.

Most cases of acute sinusitis are related to a viral upper respiratory tract infection. Mucosal congestion causes apposition of mucosal surfaces in the paranasal sinuses. This leads to obstruction of a sinus ostia or normal flow of mucus resulting in retention of secretions and a favorable environment for the growth of bacteria. The ethmoid sinuses are most commonly involved in sinusitis, probably because of their position which places them in direct contact with inspired particles that can irritate the fragile ethmoid sinus lining.

Acute sinusitis is most often caused by *Strep.pneumoniae*, *H. influenzae* (unencapsulated), rhinoviruses and anaerobes. Cough and purulent postnasal discharge occur in the majority of patients, but fever occurs in less than 50%. In chronic sinusitis, staphylococcus, streptococcus, corynebacteria, bacteroides, fusobacteria, and other anaerobes may be responsible. The fungi most commonly involved in the sinuses include *Aspergillus*, species, mucormycosis, bipolaris, drechslera, curvularia and *Candida* species.

Functional endoscopic sinus surgery has become an increasingly popular means to treat sinus problems that are nonresponsive to appropriate medical therapy. Before the advent of FESS, two surgical techniques--transbuccal maxillorhinostomy or Caldwell-Luc and the inferior meatal antrostomy--were used for relief of maxillary sinusitis. Since both of these procedures have significant failure rates, they are rarely used today. These procedures result in a dysfunctional mucociliary clearance system of the sinus which contributes to stagnation of mucous secretions and recurrent sinusitis. The Caldwell-Luc is reserved for treatment of patients with complicated sinusitis such as mucocoeles or tumor. In contrast to sinus surgery of the past, which was directed primarily at the sinuses themselves, FESS is directed at relieving the obstruction that limits the normal course of mucociliary drainage. Amputation of the uncinate process, enlargement of the infundibulum and maxillary sinus ostia and creation of a common channel for the anterior ethmoid air cells are common practice at FESS. Usually FESS also includes complete or partial ethmoidectomy but does not strip the mucosa clean, as in a Caldwell-Luc procedure and mucociliary motility is preserved. Once the obstruction has been removed, the sinus becomes ventilated and inflammation resolves. The sinus mucosa returns to normal and mucociliary function is restored.

The surgery is done by means of an intranasal endoscope rather than with an external approach so knowledge of the bony landmarks is essential. The surgeon must know at all times where he or she is in order to prevent complications such as orbital or intracranial entry, particularly when operating posteriorly in the sinonasal cavity. For the FESS surgeon, coronal CT scans are ideal as they more closely simulate the view of the sinonasal cavity as seen by the surgeon.

Conclusion: Acute bouts of sinusitis are treated medically and traditionally diagnosis has been made on a clinical basis. Plain film radiography of the paranasal sinuses is a simple, low cost procedure to obtain for evaluation of patients with symptoms suggestive of sinusitis. The plain radiographic imaging of sinuses consists of Waters, Caldwell, and submental vertex views. Identification of air-fluid levels is the radiographic hallmark of acute sinusitis, however mucosal changes or thickening of the mucosal lining may not be apparent, particularly with symmetric disease. CT imaging of the sinuses provides a more accurate picture of the anatomy and can provide details unavailable with plain film imaging. While CT imaging is the preoperative procedure of choice for those patients with chronic or medically unresponsive sinusitis, debilitating headache, facial pain or congestion, a limited coronal scanning protocol can provide a low cost alternative to plain film. The limited, coronal, scanning protocol consists of 5 to 6 evenly spaced (non-contiguous) coronal images with 3mm collimation from the frontal sinus anteriorly to the sphenoid sinus, posteriorly. These non-contiguous coronal images provide better anatomic depiction of the paranasal sinus anatomy than conventional (plain film) sinus series and the cost is comparable.

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2. David M. Yousem, MD, "Imaging of Sinonasal Inflammatory Disease," *Radiology* volume 188 Number 2 (August 1993): 303-313.
3. John Earwaker, FRACR, "Anatomical Variants in Sinonasal CT," *Radiographics* volume 13 number 2 (March 1993): 381-15
4. Kevin L. Nelson, MD, "CT of Sinonasal Inflammatory Disease," *Imaging Decisions* volume 1 Number 1 (March/April 1994): 26-38.

Editor/Author: David Harshfield, M.D., Director of Imaging at Riverside Imaging Center in North Little Rock and Director of Radiology at the Arkansas Heart Hospital in Little Rock.

Author: Mary Groves, M.D., recently graduated from UAMS and is currently an intern at Scottsdale Memorial Hospital in Arizona.

New Members

ASHDOWN

Kile, H. Lawson, Family Practice. Medical Education, Louisiana State University Medical Center, Shreveport, 1994. Internship/Residency, AHEC, Texarkana, 1995/1997. Board eligible.

CLARKSVILLE

Styles, Angela Rose, Dermatology. Medical Education, UAMS, 1992. Internship/Residency, UAMS, 1993/1996. Board certified.

CONWAY

Taylor, Christopher Tobin, Ophthalmology. Medical Education, Baylor College of Medicine, Houston, Texas, 1992. Internship, St. Joseph Hospital, Houston, 1993. Residency, University of Iowa Hospitals and Clinics, Iowa City, 1997. Board eligible.

FORREST CITY

McDonald, Don L., Psychiatry. Medical Education, UAMS, 1993. Internship/Residency, University of Tennessee, Memphis, 1994/1997.

FORT SMITH

Handley Melissa Hanson, Pediatrics. Medical Education, University of Texas Medical Branch, Galveston, 1992. Internship/Residency, University of Texas - Southwestern, 1993/1995. Board certified.

Keating, Janice Michelle, Neurology. Medical Education, UAMS, 1993. Internship/Residency, University of Alabama at Birmingham, 1994/1997. Board pending.

HOT SPRINGS

D'Annunzio, Donald Raymond, Dermatology. Medical Education, Brown University School of Medicine, Providence, Rhode Island, 1993. Internship, Roger Williams Medical Center, Providence, RI, 1994. Residency, Henry Ford Hospital, Detroit, Michigan, 1997. Board eligible.

Jayne, Russell Patrick, Ophthalmology. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1992. Internship, St. Anthony Family Medical Center, Oklahoma City, 1993. Residency, University of Kansas School of Medicine, Kansas City, Kansas, 1996. Board eligible.

LITTLE ROCK

Chandler, Kay Hilscher, Obstetrics/Gynecology. Medical Education, University of Texas Southwestern, Dallas, 1993. Residency UAMS, 1997.

Gungor, Anil, Otorhinolaryngology/Head & Neck Surgery. Medical Education, Hacettepe University, Ankara, Turkey, 1986. Internship/Residency, Hacettepe University, Ankara, Turkey, 1986/1990.

Gungor, Neslihan, Pediatrics. Medical Education, Hacettepe University, Ankara, Turkey, 1989. Internships, Hacettepe University Children's Hospital and University of Chicago Children's Hospital, 1989/1996. Residencies, Hacettepe University Children's Hospital and University of Chicago Children's Hospital, 1994/1997.

Howington, John A., Thoracic Surgery. Medical Education, University of Tennessee Center for Health Sciences, Memphis, 1989. Internship/Residency, University of Missouri, Truman Medical Center, Kansas City, Missouri, 1990/1994. Board certified.

Kaiser, Jeffrey Radin, Neonatology. Medical Education, University of Maryland School of Medicine, Baltimore, 1989. Internship/Residency, Mt. Sinai Hospital, New York, NY, 1991/1994. Fellowship, University Texas Southwestern, Dallas, 1997. Board certified.

Shaver, Robert O'Neal, Pathology. Medical Education, UAMS, 1992. Board pending.

Shrieve, Dennis Charles, Radiation Oncology. Medical Education, University of Miami School of Medicine, Miami, Florida, 1989. Internship/Residency, University of California School of Medicine, San Francisco, 1990/1993. Board certified.

Straub, Karl David, Internal Medicine & Endocrinology. Medical Education, Duke University School of Medicine, Durham, North Carolina, 1965. Internship, Duke University, 1967. Residency, UAMS, 1975.

Swank, Darrell William, Pathology. Medical Education, University of North Dakota School of Medicine, Grand Forks, 1986. Residency, Mayo Graduate School of Medicine, 1991. Board certified.

POCAHONTAS

Loop, Paul Jay, Psychiatry. Medical Education, UAMS, 1993. Internship/Residency, The Menninger Foundation, Topeka, Kansas, 1994/1997.

RUSSELLVILLE

Veach, Paul Anthony, Emergency Medicine. Medical Education, University of South Carolina Medical School, Columbia, 1994. Internship/Residency, UAMS, 1995/1997.

SHERWOOD

Sullivan, Fred M., Jr., Occupational Medicine. Medical Education, Louisiana State University School

of Medicine, Shreveport, 1982. Internship/Residency, Louisiana State University Medical Center, Shreveport, 1983/1985.

SPRINGDALE

Mayhew, Kathy Lynn, Family Practice. Medical Education, Oklahoma State University College of Osteopathic Medicine, Tulsa, 1993. Internship, Tulsa Regional Medical Center, 1994. Residency, Northwest Family Practice, Fayetteville, 1996. Board pending.

OUT OF STATE

Barakat, Maroun Hanna, Family Medicine. Medical Education, Universidad Central Del Este, Dominican Republic, 1985. Internship, State University of New York, 1990. Residency, Millard Fillmore Hospital and Niagara Falls Memorial Hospital, 1992/1994. Board pending.

Freeman, Jerre Minor, Ophthalmology. Medical Education, University of Tennessee Center for Health Sciences, Memphis, 1963. Internship, Baptist Hospital, Memphis, 1964. Residency, University of Tennessee, Memphis, 1967. Board certified.

RESIDENTS

Braswell, Camille Swihart, Family Practice. Medical Education, UAMS, 1997. Internship, AHEC-Pine Bluff.

Cotner, James Brian, Family Practice. Medical Education, UAMS, 1997. Internship/Residency, UAMS - South Arkansas AHEC.

Griffin, Gary E., Family Practice. Medical Education, University of Osteopathic Medicine & Health Sciences, Des Moines, Iowa, 1997. Internship, AHEC-Pine Bluff.

Higgins, Rhonda Edison, Family Medicine. Medical Education, Oklahoma State University College of Osteopathic Medicine, Tulsa, 1997. Internship, UAMS, AHEC-Pine Bluff.

Lindsey, Brad Leonard, Family Medicine. Medical Education, UAMS, 1997. Internship, Jefferson Regional Medical Center, Pine Bluff.

Martin, Dawn Botwinick, Pediatrics. Medical Education, UAMS, 1996. Internship, Arkansas Children's Hospital, 1997. Residency, Arkansas Children's Hospital.

Middleton, Toni L., Family Medicine. Medical Education, UAMS, 1997. Internship, AHEC-Pine Bluff.

Murdock, Matthew A., Pediatrics. Medical Education, Texas Tech University Health Sciences Center, 1997. Internship/Residency, UAMS, Arkansas Children's Hospital.

Payne, Elisa Marie, Family Practice. Medical Education, University of Texas Health Science Center, San Antonio, 1997. Residency, AHEC-Fort Smith.

Price-Barnes, Shirley, Family Practice. Medical Education, UAMS, 1997. Residency, AHEC-Pine Bluff.

Rubio, Isabel Teresa, General Surgery. Medical Education, University of Salamanca, Spain, 1989. Residency, University Hospital of Badajoz, Spain, 1995. Fellowship, UAMS.

Scott, William Patrick, Family Medicine. Medical Education, UAMS, 1997. Internship, UAMS, AHEC-Pine Bluff.

Short, Walter M., Family Practice. Medical Education, UAMS, 1997. Residency, UAMS, AHEC-El Dorado.

Simpson, Christopher, Internal Medicine. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Spradlin, Timothy Lee, Family Practice. Medical Education, University of Texas Medical School, San Antonio, 1997. Residency, UAMS, AHEC-Fort Smith.

Ward, Samuel Edward. Medical School, Spartan Health Sciences University, St. Lucia, West Indies. Internship, AHEC-El Dorado.

Will, Michael J., General Surgery. Medical School, University of Texas Medical School, San Antonio, 1995. Internship/Residency, Brooke Army Medical Center, Houston, Texas, 1996/1997. Fellowship, Cosmetic Surgery Center, Little Rock.

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Things To Come

October 10-11

1997 Cancer Update for Primary Care. Hyatt Regency, New Orleans, Louisiana. Sponsored by the Alton Ochsner Medical Foundation, American Cancer, Louisiana Division and Southern Medical Association. For more information, call 1-800-778-9353 or (504) 842-3702.

October 15-19

2nd Annual CME Course - Infectious Disease '97 Board Review: A Comprehensive Review for Board Preparation. The Ritz-Carlton, Tysons Corner, McLean, Virginia. Sponsored by The Center for Bio-Medical Communication, Inc. For more information, call (201) 385-8080.

October 17-19

Pearls and Pitfalls for Primary Care Physicians. Radisson Hotel, Baton Rouge, Louisiana. Sponsored by the Alton Ochsner Medical Foundation. For more information, call 1-800-778-9353 or (504) 842-3702.

October 26-30

1997 State-of-the-Art Conference: Occupational and Environmental Medicine. Nashville, Tennessee. Sponsored by the American College of Occupational and Environmental Medicine. For more information, call (847) 228-6850, ext. 152.

November 13-14

23rd Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

June 23, 1998 - July 5, 1998

12-Day Study Cruise on ms Rotterdam VI - Healthcare in the 21st Century. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored by the University at Sea Continuing Education, Inc. For more information, call 1-800-926-3775.

AMS Sponsors Workshops

October 16, 1997

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Keeping Up

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

General Internal Medicine Review, Wednesdays, 12:00 noon, Room 238 Bldg. 1
Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Update (Management of Top 20 Ambulatory Diagnoses), October 3-5, 1997, Gaston's Lodge on the White River.
For more information, call 1-800-422-0322 or 501-442-1823.
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Thursday, November 20, 1997. Video conference. 12 noon to 1:30 p.m. Topic: to be announced. Location: UAMS education building/AHEC's and Rural Hospital Affiliates. For more information, call 501-649-8501, ext. 203.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.

Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital/OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
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VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
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VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

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AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

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Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
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Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
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Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
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Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
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Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.
Tumor Conference, 4th Tuesday, 12:00 noon, Medical Center of South AR, Warner Brown Campus
Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

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Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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Volume 94 Number 5

October 1997

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Cover photograph taken by Steve Asmussen of Little Rock.

Food for Profit, Food for Thought

Lee Abel, M.D.

In this issue of *The Journal* we examine obesity and eating disorders which are topics of relevance to almost all physicians. Obesity is especially important to Arkansas physicians, because Arkansas ranks among the states with the highest incidence of this problem. Dr. Philip Kern of UAMS writes about the medical treatment of obesity. Dr. Balsiger and colleagues from the Mayo Clinic write a brief review (reprinted from *Mayo Clinic Proceedings*) on obesity surgery. Joytin Vyas of the Arkansas Department of Health gives us a statistical picture of obesity in Arkansas. Dr. Maria Portilla of Arkansas Children's Hospital examines eating disorders in adolescents. I have written the final article which is a patient handout on obesity and nutrition.

It is clear to physicians who see obese patients that there is a lot of suffering surrounding this problem. Our patients often tell us of their unhappiness with their weight and their intense frustration over not being able to lose weight. Some seem desperate to lose weight. Some seem burdened with guilt about their weight. Some seem depressed which may be a cause of, or a result of, the obesity. All this is familiar and understandable. Food and weight are highly charged issues. We often can't talk long about food without invoking (in seriousness or in jest) the concept of guilt. We also know the prejudice, discrimination, and disapproval the obese have to contend with. This societal pressure may have something to do with eating disorders such as anorexia nervosa, as well.

The doctor's conundrum arises from two facts: 1) most attempts at weight loss will fail - 90 to 95 percent of persons who lose weight subsequently regain it,¹ and 2) the health risks of obesity are too great to ignore. Is it possible to encourage weight loss but not contribute to our patients' suffering if they don't succeed? Can we actually help our patients in losing weight or at least in suffering less? These are formidable challenges.

Weight loss has become a huge business in the United States. We currently spend over \$30 billion a year on diet foods, products and programs.² Since the incidence of obesity is increasing, this amount will

likely also increase. This large pot of money seems to attract some "shady characters" who prey on the hopes, fantasies, and fears of the overweight. In some ways physicians have a surprisingly minor role in obesity treatment. This may partly be because the media often reports that doctors don't know much about nutrition (and nutrition and preventive medicine, at least in the past, were not emphasized in medical school). Partly it's because we sometimes don't offer much more to our overweight patients than quickly given advice to just eat less. And maybe some doctors, based on their experience and the gloomy statistics, have basically given up on the goal of helping their patients lose weight. This may change as the pharmaceutical companies are introducing and actively promoting new drugs for weight loss (see Dr. Kern's article beginning on page 191). Unfortunately, all the drugs we currently have, and are likely to have in the near future, are only modestly effective and carry some significant unknowns. Moreover, if they are not coupled with nutritional counseling and exercise prescriptions, then the long term results will likely be very disappointing.

Educating patients about these necessary lifestyle changes can be a very time consuming process. With this in mind, I have written a handout for patients. An unavoidable problem with handouts is that one size doesn't fit all. And not all patients are able to use handouts. In those who can, a handout may serve as a starting point; individualizing the recommendations is often a necessary next step.

My handout is very personal and somewhat idiosyncratic. I have addressed issues that seem to come up frequently in my patient population. You are welcome to use this handout for your patients. However, what I have written might instead serve as a stimulus to write your own patient handout in which you share your perspective on ways to achieve a healthier lifestyle. Advertisements frequently use the personal testimonial because it can be an effective selling tool. This technique is not traditional in medicine, and it does have its limitations. But we see its effect when our patients try a fad diet that a friend recommended, or get advice about supplements from their neighbor,

* Dr. Abel specializes in internal medicine and is affiliated with the Little Rock Diagnostic Clinic. He is a member of the editorial board for *The Journal of the Arkansas Medical Society*.

or buy a bottle of "fat burner pills" through the mail that their cousin recommended. By sharing our own personal experiences and combining this with the available science, maybe we can persuade more of our patients to adopt a healthier lifestyle. Even if we don't succeed in that, maybe we will succeed in educating our patients and thereby "immunize" them against susceptibility to weight loss fads and scams.

We also need to continue to educate ourselves to the importance of approaching our patients nonjudgmentally and with respect. Our profession calls us to have empathy and compassion for our patients regardless of their ability to follow any particular treatment. Dr. Francis Peabody said, "The secret of the care of the patient is in caring for the patient."³ If we can do this, we will serve our patients, and be better able to relieve their suffering, even though we may have no cure.

References:

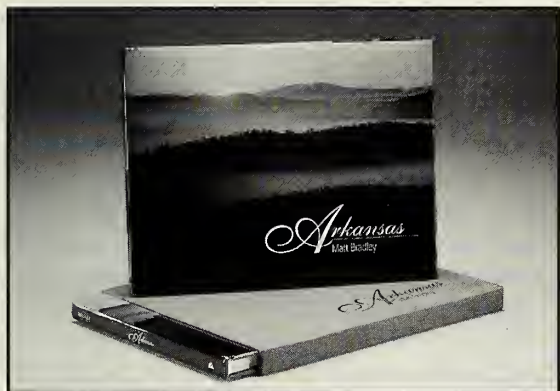
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- 2) National Task Force on the Prevention and Treatment of Obesity. Long-term pharmacotherapy in the management of obesity. JAMA. 1996;276:1907-1915.
- 3) Fauci AS, Braunwald E, Isselbacher KJ, et al (eds). Harrison's Principles of Internal Medicine. 14th ed. New York' McGraw-Hill, 1998, p 2.

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Health Care Access Foundation

As of September 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 13,010 medically indigent persons, received 24,797 applications and enrolled 48,230 persons. This program has 1,765 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

EMSC's Statement on Early Referral to Physical Medicine & Rehabilitation Services *Background and Resolution*

Emergency Medical Services for Children (EMSC), which is jointly administered by the Health Resources and Services Administration and the National Highway Traffic and Safety Administration, sponsors programs designed to reduce child and youth mortality and morbidity due to severe illness or trauma. EMSC aims to ensure that state-of-the-art emergency medical care is readily available for all ill or injured children and adolescents; is backed by optimal resources; and that there is continuity of care across the entire spectrum of emergency services, from primary prevention of illness and injury through acute care, rehabilitation, and into the community.

To meet this mandate, EMSC believes that every acute care facility must make a formal and ongoing commitment to ensure that planning for rehabilitation services is included in every child's treatment program well in advance of the child's discharge from acute care.

Why Each Step Is Needed - Each year, thousands of children require hospitalization following a serious injury or acute illness. Injury alone causes approximately 20,000 of these children to lose their lives while another 50,000 are permanently disabled ("Childhood Injuries in the U.S.", AJDC, Vol. 144, June 1990). Too many of these disabled children are being discharged to home without formal attention to the rehabilitation services they need to make a full, successful transition to community life.

The National Pediatric Trauma Registry at the Research and Training Center on Childhood Trauma and Rehabilitation (RTCCTR), funded by the National Institute on Disability and Rehabilitation Research, has determined that injured children who are unable to engage in age-appropriate activities are often discharged directly to their homes with no referrals for rehabilitation services.

These children have a clear need for rehabilitation therapies to help them regain their abilities in normal

activities of daily living, such as communicating with others, dressing themselves, completing school assignments, and interacting with friends.

Furthermore, evidence shows that there is little consistency in the processes that determine which children will receive rehabilitation services and which will not. For example, another study conducted at the RTCCTR found that children with similar functional impairments do not necessarily receive similar treatment following the acute phase of medical care. Specifically, patients treated at trauma centers that had onsite rehabilitation units were significantly more likely to have their rehabilitation needs addressed at discharge than patients treated at trauma centers without onsite rehabilitation programs (Osberg and DiScala, 1990).

An additional source of confusion may be the wide variety of environments in which rehabilitation care is delivered. Pediatric rehabilitation programs may operate as independent, free standing facilities; hospital-based free standing programs; integrated inpatient programs; outpatient programs; and community-based programs (American Rehabilitation Association, 1996). The diversity of forms involved can lead to inconsistencies in the mix of providers who participate in each child's care (Quint, 1992).

All of these examples help illustrate the need for a formal commitment from acute care providers to make pediatric rehabilitation an integral part of the total care plan. Acute care providers must assess the need for rehabilitative care in every child's treatment program and see that appropriate rehabilitation services are properly coordinated in the early stages of planning.

What Must Be Addressed in This Commitment - Every acute care facility should have an active protocol for coordinating services with physical medicine and rehabilitation services. This protocol should include mechanisms for referral, evaluation, and delivery of services. During the acute phase of every child's care, a designated person on the child's treatment team should provide the child's family with written materials that include information about the child's diagnosis, family support networks, and other resources available.

As early as possible in the acute phase of every child's care, at least one provider from physical medicine and rehabilitation services should be notified and included on the child's treatment team. This team member may be a physician, physical therapist, occupational therapist, speech-language pathologist, or social worker.

In addition, it is important to involve family members, primary care providers, educational specialists, and community services to ensure a carefully planned transition.

Caregivers should make referrals to these systems and work in collaboration throughout the child's course of treatment.

Benefits for Adopting This Resolution - There are many benefits across the health care system in developing a continuing care and referral pathway for pediatric rehabilitation:

By providing reliable and consistent opportunities for children to receive early rehabilitation services, we will help to ensure that every child recovers the fullest possible communicative, cognitive, physical, social, and emotional abilities, thereby minimizing long-term disability and the cost associated with special care.

By ensuring the continuity of necessary health care through each child's rehabilitation phase, we will decrease the incidence of delayed-onset complications, such as psychological challenges, skin breakdown, and secondary disability related to contracture.

By providing a mechanism for early coordination of efforts with rehabilitation services, educational services, and community services, we will:

- > *Ensure that an organized network of necessary support services is in place prior to every child's discharge from acute care;*

- > *Provide more efficient and more universally accessible support services for families that need these resources; and*

- > *Begin to eliminate costly duplication of efforts and administrative delays among these services.*

- *Information provided by the Department of Health & Human Services, Maternal & Child Health Bureau.*

Laparoscopic Surgery for Infertile Women with Mild Endometriosis

It is unclear whether surgical treatment for mild endometriosis improves fertility. To address this question, Canadian researchers conducted a multicenter, randomized trial involving 341 ovulating women who had attempted to become pregnant for at least one year without success. All had minimal-to-mild endometriosis diagnosed laparoscopically. Those with severe adhesions were excluded.

At diagnostic laparoscopy, half the women received no treatment for endometriosis or adhesions, and the other half underwent resection or ablation of visible endometriosis lesions; adhesions were lysed in 14% of this group. The endpoint was pregnancy within 36 weeks; pregnancies were followed for 20 additional weeks.

Patients who had surgical treatment were significantly more likely to have a viable pregnancy than those who had diagnostic laparoscopy only (31% vs. 18%). A subgroup of 284 women with no adhesions had a similar relative benefit from surgery.

Comment: The absolute difference of 13% suggests that about one of eight women with minimal-to-mild endometriosis would benefit from laparoscopic surgery, at least during a nine-month follow-up. An editorialist implies that it now might be worthwhile to

compare laparoscopic surgery with empirical medical therapy for endometriosis. -AS Brett

Marcoux S et al. *Laparoscopic surgery in infertile women with minimal or mild endometriosis.* N Engl J Med 1997 Jul 24; 337:217-22. Gambone JC and DeCherney AH. *Surgical treatment of minimal endometriosis.* N Engl J Med 1997 Jul 24; 337:269-70.

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Are We Underusing Aspirin for Possible MI?

Prompt administration of aspirin is recommended for patients with acute coronary syndromes. This retrospective chart review examined whether patients presenting to emergency rooms with possible myocardial infarction (MI) were given aspirin.

Investigators examined the records of 2,383 patients presenting to four Rhode Island university affiliated emergency departments with acute cardiac problems. Initial emergency department diagnoses included unstable angina (38%), chest pain with high suspicion of ischemia (24%), and MI (9%). Physicians prescribed aspirin for 712 patients (30%). More of the patients with presumed MI (68%) were given aspirin than were patients with presumed unstable angina (32%) or suspicion of ischemia (27%). Acute MI was subsequently diagnosed in a total of 463 patients; 55% of these did not receive aspirin in the emergency department. Of the patients who did receive aspirin, half received it more than an hour after arrival.

Comment: Aspirin appears underutilized in patients with acute cardiac complaints. Even when given, substantial delays in administration are frequent. - CD Mulrow

Saketkhou BB et al. *Emergency department use of aspirin in patients with possible acute myocardial infarction.* Ann Intern Med 1997 Jul 15; 127:126-9.

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Nominations Being Accepted for "Country Doctor of the Year" Award

More than just a physician, he or she is a local legend, known for both extraordinary humanity and exemplary healing skills.

Anyone knowing a physician who fits this description is encouraged to submit a nomination on his or her behalf for the "Country Doctor of the Year Award."

The national award, now in its fourth year, is presented by Staff Care, Inc., a temporary physician staffing firm based in Irving, Texas. Nomination forms can be requested by calling Staff Care at (800) 685-2272 and must be completed and returned by November 10, 1997.

Award Criteria - An awards committee comprised

of Staff Care executives and country doctors will judge nominations on the following criteria:

*Scope of care: The nominated physician must provide primary care to patients of all ages.

*Continuity of care: The nominee must have served his or her community for five years or more.

*Rural practice: The physician must practice in a community of 25,000 people or less.

*Dedication: The nominee must have demonstrated extraordinary dedication to his or her patients and community.

"We are looking for the quintessential country doctor," says Joseph Caldwell, vice president of Staff Care. "A physician whose patients still pay in kind, not cash. He or she still makes house calls and probably hasn't taken a vacation in five or six years." A

The Country Doctor of the Year Award is presented at a time when rural medicine needs all the positive recognition it can get, says Caldwell.

"Country doctors are still the primary source of medical care for over 65 million Americans," Caldwell states, "But their ranks keep thinning. It is our hope that by highlighting the contributions of country doctors, more people will be attracted to this rewarding style of medicine."

Those with questions or comments about the award may call Staff Care at (800) 685-2272.

- Information provide by a Staff Care news release.

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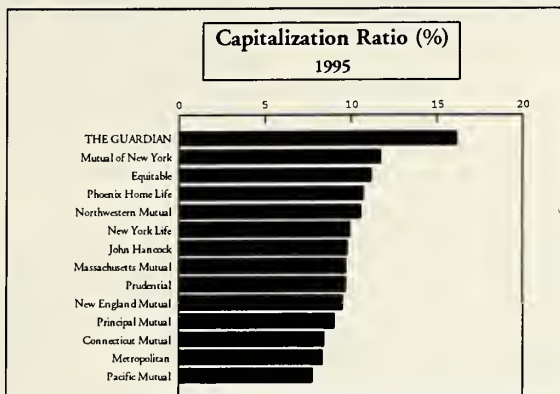
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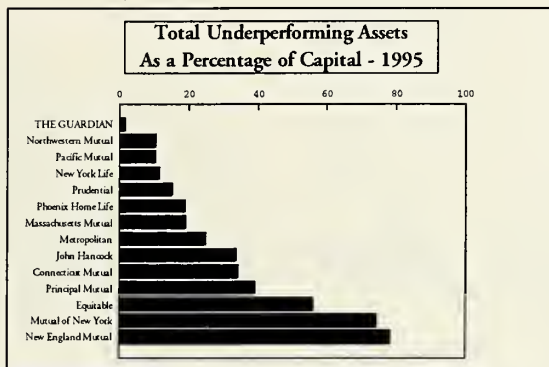


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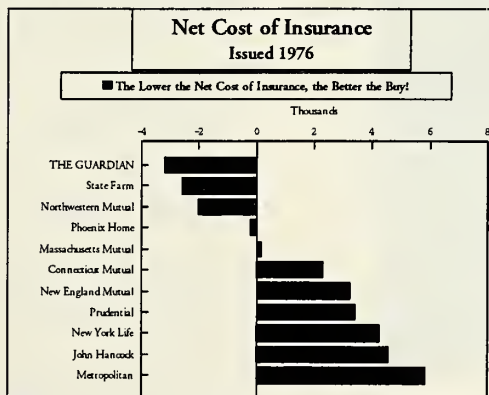
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Financial Information for The Guardian Life Insurance Company of America as of 12/31/96: \$12.1 billion in assets, \$10.9 billion in liabilities (includes \$8.5 billion in reserves), and \$1.2 billion in surplus.

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● "The Guardian's excellent liquidity position is supported by consistently strong cash flows and its \$6.8 billion of investment grade bonds, cash and short term investments (64% of invested assets)."

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● "Guardian's capitalization is exceptionally high. Its 16.1% (17.3% adjusted for policy loans) capital ratio is the highest among its peer companies. Capital is further enhanced by the company's conservative reserving practices on individual life. As a result, economic capital (which includes the large equity in individual life policy reserves) would make the capitalization ratio higher than what is reported. The company's capitalization is expected to remain strong."

● "As a percent of capital, under-performing mortgages formed less than 2% — far below the industry average."

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AMS Newsmakers

Dr. David D. Fried of Mena has been named Arkansas Family Physician of the Year by the American Academy of Family Physicians. He has been practicing medicine in Polk County for over 51 years.

Dr. J.D. Rankin, a family physician, was recently honored during a toast and roast sponsored by the Hamburg Area Chamber of Commerce for 32 years of medical service to the area. Funds raised through the dinner will go toward furnishing a room at the new county hospital in honor of Dr. Rankin.

Dr. John Smith of Hot Springs was recently appointed to the state Board of Health by Gov. Mike Huckabee.

The following AMS members were recently appointed to the new Oversight Committee on Breast Cancer Research by Gov. Mike Huckabee: Dr. Raymond Bredfeldt of Fayetteville; Dr. Michael Cross of Springdale; and Dr. Timothy Webb of Hot Springs. The seven-member committee, formed this past legislative session, is responsible for establishing research priorities and a peer review process for breast cancer research grants.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:

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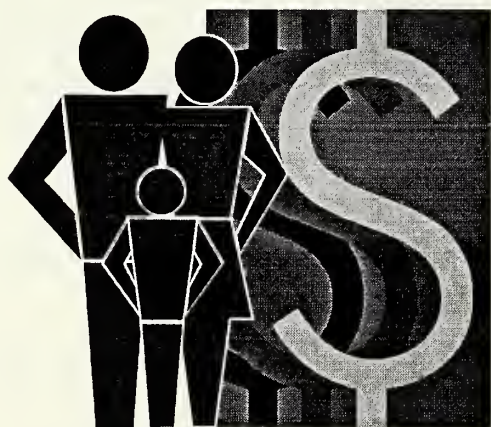
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A Prudent and Practical Approach to the Treatment of Obesity

Philip A. Kern, M.D.*

Obesity is among the most common diseases facing physicians. It is a major cause of premature mortality with enormous economic impact on our society. Recent estimates place the yearly health care costs of obesity and its complications at \$100 billion, or about 15% of total health care expenditures. This paper will provide an overview of the disease and its current treatment interventions.

Clinical Aspects of Obesity

Definition and incidence of obesity

Obesity is defined as an excess of adipose tissue. Although the precise definition of obesity varies, the term obesity usually refers to a degree of overweight that impacts negatively on the patient's health. This usually occurs when a patient exceeds normal body weight by 20 percent or more. Although there are several approaches to measuring degree of obesity, an effective and simple office technique involves only height and weight measurements. Called the body mass index (BMI), this measure divides body weight (in kilograms) by the square of the person's height in meters. A table, as shown in Figure 1 on the following page, can be posted on the wall where vital signs are performed and obviate the need of a manual calculation. Using the BMI, the normal weight range falls between 20 and 25. Mildly obese persons fall within a BMI range of 25-30. Because some normal men have a muscular, stocky build, some studies define a normal BMI for men as <27. Mild obesity affects roughly 35 percent of men and 25 percent of women, and accounts for about 90% of the obese population. The range for moderate obesity is a BMI of 30-35, comprising 9% of the obese population. Severe obesity is characterized by a BMI in excess of 35. It constitutes about 0.5% of the obese population and roughly 0.15% of the general population. Nevertheless, the severely obese subcategory applies to over one million persons and places them at serious health risks.

Using the BMI, the incidence of obesity in the

United States has continued to rise. In the most recent survey, the incidence of obesity (defined as a BMI >27.8 for men, and >27.3 for women) has risen from 24% to 33% between 1960 and 1991.¹ This is particularly disturbing since this period of time was characterized by an increased awareness of fitness, and the food industry and media have hyped fitness, healthy lifestyles, and low-fat foods. Indeed, the average fat intake of Americans has decreased over the last 15 years. Thus, these trends point to several important points. First, that simply reducing dietary fat is not enough: total calories count. A good example of a common mistake that people make is to buy "fat-free brownies," which come in tiny serving sizes, and then eat the whole package at one sitting.

Relationship to Other Diseases

In addition to classifying obesity according to the BMI, it is important to consider the health consequences. Obesity leads to numerous medical problems, which are listed in Table 1. These health problems range from metabolic disturbances such as diabetes, hypertension, hyperlipidemia, and insulin resistance (all of which lead to increased coronary disease), to sleep apnea, gallstones, arthritis, and an increased risk for several malignancies. The increased risk of malignancies is often overlooked as a motivating factor to lose weight. Many previous studies have demonstrated an increased incidence of uterine, colon, and breast cancer in obese subjects.

Table 1:
Medical Problems Associated with Obesity

Diabetes
Hypertension
Hyperlipidemia
(especially hypertriglyceridemia & low HDL)
Coronary artery disease
Stroke
Sleep Apnea
Arthritis
Gallstones
Malignancies: uterine, colon, breast, prostate
Gout

* Philip A. Kern, M.D., is with the Department of Medicine, Division of Endocrinology, UAMS, and The John L. McClellan VA Medical Center in Little Rock.

Figure 1. BMI Chart

weight	Height																
	5'0"	5'1"	5'2"	5'3"	5'4"	5'5"	5'6"	5'7"	5'8"	5'9"	5'10"	5'11"	6'0"	6'1"	6'2"	6'3"	ft' in"
	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	inches
140	27.4	26.5	25.7	24.9	24.1	23.4	22.7	22.0	21.4	20.7	20.2	19.6	19.1	18.5	18.0	17.6	
145	28.4	27.5	26.6	25.8	25.0	24.2	23.5	22.8	22.1	21.5	20.9	20.3	19.7	19.2	18.7	18.2	
150	29.4	28.4	27.5	26.6	25.8	25.0	24.3	23.6	22.9	22.2	21.6	21.0	20.4	19.9	19.3	18.8	
155	30.3	29.4	28.4	27.5	26.7	25.9	25.1	24.4	23.6	23.0	22.3	21.7	21.1	20.5	20.0	19.4	
160	31.3	30.3	29.3	28.4	27.5	26.7	25.9	25.1	24.4	23.7	23.0	22.4	21.8	21.2	20.6	20.1	
165	32.3	31.3	30.3	29.3	28.4	27.5	26.7	25.9	25.2	24.4	23.8	23.1	22.5	21.8	21.3	20.7	
170	33.3	32.2	31.2	30.2	29.3	28.4	27.5	26.7	25.9	25.2	24.5	23.8	23.1	22.5	21.9	21.3	
175	34.3	33.1	32.1	31.1	30.1	29.2	28.3	27.5	26.7	25.9	25.2	24.5	23.8	23.2	22.6	22.0	
180	35.2	34.1	33.0	32.0	31.0	30.0	29.1	28.3	27.5	26.7	25.9	25.2	24.5	23.8	23.2	22.6	
185	36.2	35.0	33.9	32.9	31.8	30.9	30.0	29.1	28.2	27.4	26.6	25.9	25.2	24.5	23.8	23.2	
190	37.2	36.0	34.8	33.7	32.7	31.7	30.8	29.9	29.0	28.2	27.4	26.6	25.9	25.2	24.5	23.8	
195	38.2	36.9	35.8	34.6	33.6	32.5	31.6	30.6	29.7	28.9	28.1	27.3	26.5	25.8	25.1	24.5	
200	39.2	37.9	36.7	35.5	34.4	33.4	32.4	31.4	30.5	29.6	28.8	28.0	27.2	26.5	25.8	25.1	
205	40.1	38.8	37.6	36.4	35.3	34.2	33.2	32.2	31.3	30.4	29.5	28.7	27.9	27.1	26.4	25.7	
210	41.1	39.8	38.5	37.3	36.1	35.0	34.0	33.0	32.0	31.1	30.2	29.4	28.6	27.8	27.1	26.4	
215	42.1	40.7	39.4	38.2	37.0	35.9	34.8	33.8	32.8	31.9	31.0	30.1	29.3	28.5	27.7	27.0	
220	43.1	41.7	40.3	39.1	37.9	36.7	35.6	34.6	33.6	32.6	31.7	30.8	29.9	29.1	28.4	27.6	
225	44.0	42.6	41.3	40.0	38.7	37.6	36.4	35.4	34.3	33.3	32.4	31.5	30.6	29.8	29.0	28.2	
230	45.0	43.6	42.2	40.9	39.6	38.4	37.2	36.1	35.1	34.1	33.1	32.2	31.3	30.5	29.6	28.9	
235	46.0	44.5	43.1	41.7	40.5	39.2	38.0	36.9	35.8	34.8	33.8	32.9	32.0	31.1	30.3	29.5	
240	47.0	45.5	44.0	42.6	41.3	40.1	38.9	37.7	36.6	35.6	34.6	33.6	32.7	31.8	30.9	30.1	
245	48.0	46.4	44.9	43.5	42.2	40.9	39.7	38.5	37.4	36.3	35.3	34.3	33.3	32.4	31.6	30.7	
250	48.9	47.4	45.8	44.4	43.0	41.7	40.5	39.3	38.1	37.0	36.0	35.0	34.0	33.1	32.2	31.4	
255	49.9	48.3	46.8	45.3	43.9	42.6	41.3	40.1	38.9	37.8	36.7	35.7	34.7	33.8	32.9	32.0	
260	50.9	49.2	47.7	46.2	44.8	43.4	42.1	40.9	39.7	38.5	37.4	36.4	35.4	34.4	33.5	32.6	
265	51.9	50.2	48.6	47.1	45.6	44.2	42.9	41.6	40.4	39.3	38.2	37.1	36.1	35.1	34.2	33.3	
270	52.9	51.1	49.5	48.0	46.5	45.1	43.7	42.4	41.2	40.0	38.9	37.8	36.8	35.8	34.8	33.9	
275	53.8	52.1	50.4	48.8	47.3	45.9	44.5	43.2	41.9	40.7	39.6	38.5	37.4	36.4	35.4	34.5	
280	54.8	53.0	51.3	49.7	48.2	46.7	45.3	44.0	42.7	41.5	40.3	39.2	38.1	37.1	36.1	35.1	
285	55.8	54.0	52.3	50.6	49.1	47.6	46.1	44.8	43.5	42.2	41.0	39.9	38.8	37.7	36.7	35.8	
290	56.8	54.9	53.2	51.5	49.9	48.4	46.9	45.6	44.2	43.0	41.8	40.6	39.5	38.4	37.4	36.4	
295	57.7	55.9	54.1	52.4	50.8	49.2	47.8	46.3	45.0	43.7	42.5	41.3	40.2	39.1	38.0	37.0	
300	58.7	56.8	55.0	53.3	51.6	50.1	48.6	47.1	45.8	44.5	43.2	42.0	40.8	39.7	38.7	37.6	
305	59.7	57.8	55.9	54.2	52.5	50.9	49.4	47.9	46.5	45.2	43.9	42.7	41.5	40.4	39.3	38.3	
310	60.7	58.7	56.8	55.1	53.4	51.7	50.2	48.7	47.3	45.9	44.6	43.4	42.2	41.1	40.0	38.9	
315	61.7	59.7	57.8	56.0	54.2	52.6	51.0	49.5	48.1	46.7	45.4	44.1	42.9	41.7	40.6	39.5	
320	62.6	60.6	58.7	56.8	55.1	53.4	51.8	50.3	48.8	47.4	46.1	44.8	43.6	42.4	41.2	40.2	
325	63.6	61.6	59.6	57.7	55.9	54.2	52.6	51.1	49.6	48.2	46.8	45.5	44.2	43.0	41.9	40.8	
330	64.6	62.5	60.5	58.6	56.8	55.1	53.4	51.8	50.3	48.9	47.5	46.2	44.9	43.7	42.5	41.4	

Together, this increase in medical problems leads to an increase in mortality. Overall mortality in obesity increases rapidly as the BMI approaches 30, and patients who are 50% over ideal weight (BMI of about 32) have a two-fold increased incidence of mortality. With even greater weight, the risk increases exponentially. Fortunately, these problems can be significantly reduced with weight loss: in particular diabetes, hypertension, and hyperlipidemia usually improve dramatically with weight loss.^{2,3}

The type of body fat distribution results in additional risk. Patients with abdominal obesity ("apples") are at greater risk for heart disease, diabetes, hypertension, and hyperlipidemia compared to patients with more gluteal fat distribution ("pears").⁴ This difference in risk level was especially differentiating for mildly obese persons. Additionally, the intake of excessive fats in foods has been linked to both excessive body weight and certain cancers. Consequently, controlling obesity offers a means of preventing many of the most significant causes of morbidity and mortality faced by the medical practitioner.

Identification of the High Risk Patient

The BMI is a good indicator of the degree of risk from obesity. In general, a BMI of >30 represents obesity, and a BMI >35 represents severe obesity. However, some patients have mild obesity (for example, a BMI of 30), but have concomitant medical problems (diabetes, hypertension, hyperlipidemia, sleep apnea, etc.), or have an abdominal fat distribution or a strong family history of diabetes, coronary disease, or other obesity-related medical problems. Such subjects should be considered to be in a higher risk category, since the likelihood of development of coronary disease is considerably higher than a similarly overweight subject without the above complications. On the other hand, some subjects are remarkably able to tolerate certain degrees of overweight without serious medical consequences. Thus, it is important to individualize the treatment approach to any patient.

Medical Treatments for Obesity

Initial Treatment Plan

When deciding how to reduce a patient's weight, the medical practitioner is faced with balancing the medical risks associated with the patient's obesity with the demands of a weight reduction regimen, with an eye to long term adherence. The first and most realistic choice for many patients involves reducing calorie intake, perhaps with the aid of a dietitian, and increasing physical activity. For low-risk patients, who need to lose <20 pounds or with a BMI in the 25-30 range, increasing physical exercise combined with reducing calories is an effective means of weight control. This method typically involves setting a target

amount of calories for the person to eat, typically 1200-1600 calories per day, and is most easily accomplished by reducing fats from a person's diet and increasing the consumption of vegetables and fluids. These dietary changes should be monitored by the patient using a logging system for recording the calories. Additionally, adopting an exercise program affords an important, and perhaps essential, approach for reducing and controlling weight. The best exercises for weight control are endurance exercises such as walking or bicycling that yield a sustained burning of calories stored in the body's fat cells. These approaches of mild caloric reduction and increased physical activity involve little medical intervention in most patients, although it is always important to remain mindful of the need for adequate fluids, a balanced diet (with adequate vitamins and minerals), and the need to adjust medications (e.g. antihypertensives).

Dietary Supplements

A more intensive approach may be needed for obese patients with a BMI of over 30. Although the above dietary approach may work, and should be tried initially, very obese patients have often failed "dieting" repeatedly. Such patients often have good success with the use of dietary supplements. Dietary supplements are sometimes called very low calorie diets (VLCD), although VLCDs actually refer to diets composed of less than 800 calories/day. Many modern dietary supplements, when used alone or combined with a meal, involve the consumption of more than 800 calories, and are therefore not "very low" in calories. Dietary supplements are usually liquid formulas that meet the recommended daily allowance for amino acids, vitamins, minerals, trace elements, and essential fatty acids. These formulas used to be called "liquid protein," since the early formulations were essentially all protein. Modern formulations contain balanced proportions of protein, carbohydrate, and a small amount of fat, since it has been shown that the inclusion of carbohydrate minimizes the loss of lean body mass and minimizes fluid loss and the symptoms of ketosis.^{5,6}

There are a number of advantages to the use of dietary supplements. Weight loss is more rapid, and therefore patients are immediately encouraged to continue. Even if the patient is consuming 1200 calories per day of a combination of dietary supplement plus food, weight loss is usually more predictable since there is less opportunity for the patient to deviate from the diet. I often tell patients to use the supplements during the day, and to save serving of supplement for an after dinner snack. Thus, the patient simply stays away from all "food" during the day, and only has to prepare one meal in the evening, thus facing less temptation. When there is a significant amount of weight to lose, the use of dietary supplements increase the like-

likelihood that the patient will, in fact, reach his or her weight goal. Many patients do well on a diet that limits "choices," and keeps the patient away from food. Studies have shown that obese patients have difficulty adhering to diets, and often underreport food intake, and over-report exercise.⁷ Often, with very slow weight loss, motivation runs out before the goal is achieved. When properly monitored, even VLCDs (with <800 Cal/day) are safe, and they result in less hunger than diets involving caloric restriction in the 1400-1800 kcal range. VLCDs result in rapid improvement in blood pressure, serum lipids, and blood sugar levels.⁸ Patients with sleep apnea often report rapid improvement,⁹ as do patients with arthritis and congestive heart failure. When combined with appropriate behavioral change, VLCDs have been repeatedly shown to be effective in inducing a sustained weight loss.¹⁰⁻¹²

Behavior Modification

The objective of behavior modification in weight control is to reduce maladaptive, self-defeating behaviors and increasing adaptive strategies.¹³ Although most obese patients have maladaptive behaviors that promote excess food consumption, psychologists continue to debate the extent to which one can change behavior. Although behavior change is desirable, it is argued that a lifetime of maladaptive eating behaviors do not lend themselves to change easily, and the patient will return to the maladaptive behavior at a future time. Instead of focusing on changing all bad behaviors, it is important to emphasize important new behaviors that will always help the patient cope with the stresses of life. Among the new behavior skills that are important to long-term success are:

1. Exercise. It is essential to help the patient make physical activity an important part of his/her daily life.

2. Vegetables and fruits. Rather than emphasizing what *not* to eat, it is important to teach the patient the importance of eating bulky foods of low caloric value. Not only is this good nutrition, but it helps the patient develop new tastes and relieve some of the feelings of deprivation.

3. Accountability. How many times has a patient said, "I gain weight but I hardly eat anything." Studies have clearly shown that all people, but especially obese patients, underestimate caloric intake, and overestimate caloric expenditure through exercise.⁷ When such patients carefully log their food intake and exercise, a concept of accountability becomes ingrained, and this system of accountability stays with the patient for a long time.

4. Follow-up. Just as an alcoholic will likely never be "cured" of alcoholism, obesity is a lifelong struggle, and requires vigilance, which is often best handled as part of a follow-up group lead by a dietitian or a skilled counselor.

Drug Treatment of Obesity

Many different drugs have been used to suppress the appetite and limit food intake.¹⁴ The DEA Schedule II drugs, such as amphetamines, have no place in the treatment of obesity and should never be used. Other drugs that have been used in obesity include thyroid hormone preparations, human chronic gonadotropin (HCG), and ephedrine. Although thyroid hormone will increase metabolic rate, it also increases appetite along with all the other side effects of hyperthyroidism. HCG injections have been proven to have no effect on weight loss when compared to placebo injections, yet it is surprising that it is still used.

Ephedrine is found in many over-the-counter medications and herbs. It is an adrenergic analog, which may suppress appetite. As with other drugs that mimic catacholemines, however, ephedrine increases heart rate and blood pressure and is a central nervous systems stimulant. In addition, ephedrine does nothing for long-term weight maintenance.

The most prominent drugs in use for the treatment of obesity at this time are phentermine, fenfluramine (used together in the "phen-fen" combination), and dexfenfluramine (Redux®). These drugs have little abuse potential, and the fewest cardiovascular side effects, such as tachycardia and hypertension. These drugs promote weight loss through a central inhibition of appetite. Fenfluramine and dexfenfluramine accomplish this through the stimulation of brain serotonin levels, and phentermine through a peripheral and central adrenergic stimulation. These drugs have modest but well documented effects on appetite and promote weight loss. As demonstrated in a number of studies, dexfenfluramine, as well as the phentermine/fenfluramine combination, result in approximately an average 10 lb. weight loss over placebo. Some patients do not respond at all to the drugs, and some respond very well, losing a great deal of weight. Short-term symptomatic side effects, such as diarrhea, dry mouth, dizziness, and nervousness are usually mild and seldom result in discontinuation of the drugs.

Long-term Side Effects of Drugs

There are a number of problems with the use of these drugs, which necessitate a careful consideration of their use.

1. Weight regain. The physician must question the long-term goal of therapy. If the patient loses weight with the help of a drug, yet makes no change in lifestyle, then the patient will invariably regain the weight after drug withdrawal. Thus, these drugs should only be used as part of a program or serious effort at lifestyle change involving exercise and healthy eating.

2. Primary pulmonary hypertension. In the 1960's,

a drug called aminorex fumarate was released in Europe and caused an epidemic of primary pulmonary hypertension.¹⁵ For this reason, and because these drugs can cause pulmonary vasoconstriction in vitro, subsequent anorexiant have been under scrutiny for pulmonary hypertension. More recent retrospective epidemiologic studies have found that the use of all anorexiants is associated with a significant increase in PPH, when compared to a non-obese population.¹⁶ The risk increases with long term use. Although these studies were flawed (retrospective in design, control group was not obese), they are ample reason to give us pause, and only prescribe these drugs to patients that really need them.

3. Cardiac valvular lesions. A recent report detailed 24 cases of an unusual cardiac valvular lesion in patients who had been taking the phentermine/fenfluramine combination for an average of 11 months.¹⁷ This rare lesion is identical to that which is seen with carcinoid syndrome, and ergot alkaloid use, suggesting that this lesion has something to do with fenfluramine, which increases serotonin levels. Although this study does not contain a control group, these reports are sufficiently disturbing to warrant further caution with the use of this drug combination.

4. Long-term changes in brain serotonin levels. As described in a recent review,¹⁵ there is much evidence in animals that brain serotonin levels stay decreased for a long time following discontinuation of fenfluramine and dexfenfluramine. Whether or not this is important in humans is not clear. Although short-term changes in mood and mentation can occur clinically, there are no consistent reports of long-term psychiatric changes in humans.

Nevertheless, these data are yet another reason why these drugs should not be prescribed without good reason.

Thus, the risks of drugs such as fenfluramine, phentermine, and dexfenfluramine are low when used in a short term treatment plan. However, there are many serious questions about the safety of long-term treatment, and we are not yet at a point where we can recommend long-term drug treatment for obesity, as we do for hypertension or hyperlipidemia. Although dexfenfluramine (Redux) is FDA approved for up to 1 year, every attempt should be made to use even this drug for as short a time period as possible. Therefore, these drugs should be limited to the treatment of medically obese patients who understand the risks and are under the treatment and monitoring of a physician.

New Drugs to Treat Obesity

In the next few years, a number of new drugs will enter the market for the treatment of obesity. Advertising has already begun for two of these: sibutramine and orlistat. Sibutramine is another centrally acting

anorexiant. Like fenfluramine and dexfenfluramine, sibutramine increases brain serotonin levels. Unlike the other drugs, sibutramine also increases brain noradrenergic neurotransmitter levels. In addition, sibutramine appears to have a dose-response effect on appetite suppression. Therefore, unlike dexfenfluramine, which is used at one dose (15 mg BID), one could theoretically titrate the dose of sibutramine to the desired degree of appetite suppression, depending on each patient's needs and characteristics. Whether or not sibutramine causes any of the long-term side effects associated with fenfluramine or dexfenfluramine remains to be seen. Orlistat is a pancreatic lipase inhibitor which inhibits fat digestion in the intestine. Although this sounds good, the potential side effects may make this unacceptable to many patients. When dietary fat is not absorbed, it reaches the colon and will cause diarrhea or anal oil leakage. Some malabsorption of fat soluble vitamins will also be a concern. In spite of these problems, an important use of orlistat may be to help enforce a patient's diet and behavior modification strategies. If a patient knows that a fatty meal will provoke GI symptoms, then there may be more motivation to stick to a diet, much like the use of Antabuse in the treatment of alcoholism.

High Protein (low carbohydrate) Diets

For decades, the newsstands at the local bookstore have been filled with one version or another of a high protein diet. The proponents of these diet plans are prominently figured on talk shows, in the popular press, and in "infomercials," such that patients are lured into believing that these diets somehow conquer the laws of nature. On the surface, these diets propose a severe limitation of carbohydrates and allow a high consumption of protein, usually in the form of meat. Patients often embrace these diets since they allow a heavy meat consumption, and patients often report excellent weight loss. The proponents of these diets state that carbohydrates are bad because they stimulate insulin which stimulates appetite and fat deposition. In addition, hyperinsulinemia is associated with coronary disease. One is tempted to be tolerant of any diet that actually works, and by the testimonials that are offered, one would think that these diets are the cure for obesity, although these diets have never been subjected to any kind of systematic study.

There are a number of problems with these diets:

1. If these diets work, it is because they are low in calories. The diet may consist predominantly of meat, but it is usually a diet that is limited to about 1000 calories per day. Therefore, there is no mystery as to why patients lose weight.

2. Patients who like these diets are often the patients who dislike fruits and vegetables. Thus, instead of helping the patient develop lifelong improved eat-

ing skills, the diet fosters the bad habits of excessive meat consumption. The patient is left with no improved habits, and hence any weight loss cannot be sustained.

3. Carbohydrates retain fluid. Therefore a low carbohydrate diet leads to excessive diuresis. This makes the patient feel good when they lose 5 lbs. the first week, but the weight comes back on quickly with resumption of normal eating. In addition, the excessive diuresis can cause orthostatic blood pressure changes, resulting in dizziness and occasional syncope in a susceptible patient.

4. Carbohydrate deficiency leads to excessive ketosis, with consequent nausea, fatigue, and bad breath. The proponents of these diets state that the ketosis is necessary to suppress appetite. This is not true. There is very poor evidence that ketosis is necessary to suppress appetite. In my 12 years of treating obese patients with nutritionally balanced diets, it is very clear that physical hunger is not a problem after the first week.

5. Carbohydrate deficiency leads to excessive loss of lean body mass. Although this may seem paradoxical, studies have shown that the preservation of lean body mass with weight loss is dependent on carbohydrate in the diet and not just a function of how much protein is consumed.^{5,6} In another study that compared diets composed of either 25% or 45% carbohydrate, there was no difference in weight loss or lean body mass after 12 weeks.¹⁸

6. Hyperinsulinemia is bad, and carbohydrates stimulate insulin. This is true.¹⁹ However, weight loss, regardless of how one achieves it, results in reduced insulin resistance and a lower blood insulin level. Rather than concentrate on blood insulin levels that may prevail during the diet, it is more prudent to focus on helping the patient maintain a diet that will be beneficial to glycemic control and lipids. High protein diets are sometimes promoted for diabetics. However, there is much evidence that high protein diets are detrimental to renal function. Since diabetics likely have some impaired renal function (even if not clinically detected), these diets are not good for such patients.

7. High protein diets are also high fat diets. High fat diets lead to elevated blood triglycerides and cholesterol. Even if these diets are used for a brief period of time, the message that we send to patients (it is okay to eat meat three times per day) is counterproductive to long-term health.

Side Effects of Dieting

Among the discussion of side effects of drugs, different diets, surgery, etc., it is important to point out that dieting, i.e. effective weight loss regardless of how one attains it, results in side effects. One such problem is the development of gallstones. Although the only studies that have examined gallstones during

weight loss have employed very low calorie diets, there are numerous reports of biliary colic in patients using commercial food-based diet plans. Thus, gallstone formation is probably a side effect of weight loss, regardless of how it is achieved, although gallstone formation may be more common in patients that lose weight rapidly. Other side effects include fatigue, postural dizziness (due to diuresis), hair loss, menstrual irregularities, liver enzyme elevations and gout. These problems are usually temporary, and can be readily managed with attention to fluids, electrolytes, and patient compliance. A number of incidences of sudden death were reported in the 1970's and 1980's in association with several forms of high protein VLCDs. These sudden deaths were due to the poor quality of protein in these early liquid diets, inadequate fluids and potassium supplementation, and no medical supervision. Modern dietary supplements do not have these problems. However, these historical experiences should remind us to be cautious with any patient who loses a lot of weight quickly and should prompt us to question the micronutrient composition of our patients' diets. This is especially true with the use of anorexiants, which suppress the appetite, and therefore may cause the patient to consume a poorly balanced diet.

Recidivism

If patients lose weight without making any long-term change in lifestyle, then they will regain the weight. However, the attrition and weight regain associated with weight loss programs that focus on the very obese indicate that successful weight management requires permanent lifestyle changes. Such changes can be accomplished by behavior modification, which should be a part of any systematic approach to weight control.

Surgery for Obesity

Because of the difficulty with maintenance of weight loss in morbidly obese patients, many different surgical techniques have been tried (this is discussed in an accompanying article). It is important that patients are carefully selected for surgery and include those subjects who have had an appropriate trial of medical therapy and who can manage the post-operative dietary restrictions.

Summary

Although obesity is difficult to treat, the only effective long-term strategy is an emphasis on adoption of a healthy lifestyle, including exercise, and prudent control over eating habits. Such modifications in behavior can be implemented by some patients with the help and encouragement of their physician, whereas other patients need professional, psychological intervention. VLCDs are useful to attain initial weight loss,

but are not (nor were ever intended to be) a substitute for the development of a prudent lifestyle. Thus, for patients with major obesity (BMI>30), the combination of a VLCD with behavior modification offers the best medical approach to obesity. Surgery has a role in the treatment of obesity, but only in patients with morbid obesity that have repeatedly failed other treatments, including treatments involving a serious effort at behavior modification.

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Editor's Note: On September 15, 1997, (as this issue of *The Journal* was going to press) Wyeth-Ayerst Laboratories, makers of Pondimin (fenfluramine) and Redux (Dexfenfluramine), announced a voluntary withdrawal of these two medicines from the market.

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Concise Review for Primary-Care Physicians

Surgical Treatment of Obesity: Who is an Appropriate Candidate?

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The increasing prevalence and far-reaching medical, social, and economical implications of obesity have made it a national health-care crisis in the United States. About one in every three persons is at least 20% above "ideal" body weight, and approximately 5% have direct weight-related serious health problems (morbid obesity), including hypertension, hyperlipidemia, coronary artery disease, adult-onset diabetes mellitus, degenerative osteoarthropathy, and obstructive sleep apnea. Morbidly obese patients have an estimated 6- to 12-fold increase in mortality. In addition, they have a substantially diminished quality of life, not only physically but also psychosocially due to overt and occult prejudice. Weight reduction must be aggressively pursued in these patients. Medically supervised weight-control programs have been ineffective because patients cannot maintain pronounced long-term weight loss. In contrast, current operative methods have been proved to be effective in helping patients achieve and maintain permanent weight reduction. Several operations have been designed and assessed; with these procedures, weight loss is achieved by inducing malabsorption, maldigestion, early satiety, or a combination of these outcomes. Although these operations have associated side effects and limitations, the expected benefits outweigh the risks. For optimal results, patients must be carefully selected and treated by a multidisciplinary group.

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BMI = body mass index

Obesity in the United States is a national health-care crisis for which health-care expenditures are substantial and are escalating. Previous estimates suggested that as many as 20% of men and 27% of women are more than 20% above "ideal" body weight, as de-

finied by the Metropolitan Life Insurance Tables¹ or by body mass index (BMI) (BMI = weight [in kilograms] divided by height [in square meters])¹ of greater than 27.3.² The latest National Health and Nutrition Examination Survey (1988 through 1991) showed that these figures had increased to 31% for men and 35% for women. Thus, about 58 million people in the United States are obese.^{1,3}

Although mild to moderate obesity (BMI of 28 to 35) has obvious but inconstant associated morbidity, the more severe types of obesity (BMI greater than 35) indicate definite and consistent medical morbidity. Those severe variants of obesity have been termed "morbid obesity" or are referred to in the lay media as "medically complicated obesity" (patients do not like to be referred to as being "morbid"). Patients have morbid obesity when they are 100% or more above ideal body weight; are at least 45.4 kg above ideal body weight, or have a BMI greater than 35; thus, most women who weigh more than 108.9 kg and most men who weigh more than 122.5 kg would be considered morbidly obese. A better and more appropriate definition of morbid obesity includes patients who have direct weight-related serious morbidity, such as hypertension, type II diabetes mellitus, mechanical arthropathy, lipid-related cardiac disease, and sleep apnea.^{1,4} The estimated prevalence of morbid obesity in the United States is about 2% for men and 6% for women.³ Although the actual early mortality risk for women with morbid obesity is not well defined, men between 25 and 34 years of age with a BMI greater than 40 have a documented 12-fold increase in overall mortality in comparison with normal-weight men.⁵ Within this context, weight-related morbidity accounted for an increase in health-care expenditures of \$68.8 billion in 1990.³

In this article, we provide a brief overview of the complications of morbid obesity and attempt to determine who might be an appropriate candidate for weight-reduction surgical treatment or a so-called

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bariatric operation. The types of bariatric operations, their associated side effects and limitations, and the expected success in weight loss are reviewed objectively. The goal of this review is to clarify for primary health-care providers the role and success of bariatric surgical treatment in this select patient group with morbid obesity. A recent National Institutes of Health Consensus Conference on surgical treatment of obesity provided credibility for an operative approach (especially with third-party payers) by presenting a strongly supportive summary statement that recommended bariatric surgical treatment once appropriate medical indications are fulfilled.⁶

Complications of Morbid Obesity

Numerous studies have documented increased morbidity and mortality in obese people. Obesity (BMI greater than 28) increases the incidence of risk factors for coronary heart disease such as hyperlipidemia, hypertension, and type II diabetes mellitus. In addition, cancer of the endometrium, colon, prostate, and possibly breast, as well as pulmonary insufficiency and sudden unexplained cardiac arrest, have a high prevalence in obese people.^{1,4} Most of these data are from studies involving obese people with a wide spectrum of disease. In a study of men and women with morbid obesity (mean BMI of 38 for men and 41 for women), Sjostrom⁷ found that diabetes, angina pectoris, and symptomatic peripheral vascular disease were 24, 37, and 105 times more frequent, respectively, than in randomly selected, age-matched men and women. Other studies show that a BMI greater than 35 dramatically increases health risk.⁸ These observations may be underestimated because data on extremely obese people (weight greater than 158.8 kg) are scant due to logistic problems in data collection.³

Weight loss with weight maintenance reduces the prevalence of cardiovascular risk factors³ and, in many patients, reverses diabetic, hypertensive, and pulmonary dysfunction, as well as minimizes progression of musculoskeletal disorders associated with morbid obesity.⁴ Thus, weight reduction should be aggressively pursued in patients with morbid obesity.

Treatment

For initial management, conservative options such as supervised low-calorie diets in conjunction with behavior therapy and exercise should be attempted. Unfortunately, results with this type of strategy are disappointing;^{4,8} of subjects who are successful in losing a substantial amount of weight, only 5 to 10% (the latter percentage being optimistic) will maintain the loss for more than a few years.⁸ "Yo-yo" dieting, which leads to "weight cycling," may actually have a higher associated mortality risk than does a constant, massive overweight problem.^{1,4} Because current modes of

medical treatment are usually ineffective in patients with morbid obesity, surgical methods (especially Roux-en-Y gastric bypass) have been assessed and, despite their more invasive nature, have demonstrated a much higher success rate (80% or greater) in helping patients achieve and maintain long-term weight loss.⁹

Who is an Appropriate Candidate for Weight-loss Surgical Procedures?

In general, the indications for surgical treatment established by the 1991 National Institutes of Health Consensus Development Conference Panel⁶ include a BMI greater than 40 or a BMI greater than 35 in combination with life-threatening cardiopulmonary problems or severe diabetes mellitus. Nonetheless, strict absolute weight determinants should serve only as an overall guide, especially in regard to third-party payers (Table 1). For instance, few thoughtful physicians would argue that a 40-year-old man with hypertension, type II diabetes mellitus, severe degenerative joint disease in his knees and lower back area, and sleep apnea who has a BMI of only 33 does not have morbid obesity. Thus, all patients with severe, direct weight-related morbidity (Table 2) may be considered, but each patient should be considered individually.

For some patients who have a history of failed conservative treatments and a BMI of approximately 35, a trial of pharmacologic appetite suppression might be the next reasonable choice, especially if the weight-related morbidity is not severe.¹⁰ Substantial and prolonged weight loss (greater than 50% of excess body weight), however, would be distinctly unusual with this approach, and thus this type of regimen should not be expected to be successful in most patients with morbid obesity and severe comorbidities due to weight.

The overall guidelines should be as follows. Patients who fulfill the absolute weight criteria and have active weight-related morbidity or younger obese subjects (older than 20 years of age) who have a family history of weight-related morbidity but who have not yet experienced any complications should be considered preliminary candidates. Chronologic age,¹¹ pre-

Table 1: Criteria Usually Required by Third-Party Payers of Bariatric Surgical Treatment

- Body weight greater than 100% above ideal body weight*
- Weight-related serious comorbidity (see Table 2)
- Failed attempts with nonoperative, supervised weight-reduction programs
- No substance abuse, psychoses, or uncontrolled depression

*As defined by the Metropolitan Life Insurance Tables.¹

Table 2: Complications of Morbid Obesity

- Degenerative joint disease ("mechanical" arthropathy)
- Hypertension
- Hyperlipidemia
- Coronary artery disease
- Type II diabetes mellitus
- Sleep apnea
- Lower extremity venous and lymphatic obstruction
- Obesity-related pulmonary hypertension

vious abdominal operations, or previous bariatric procedures that are functionally ineffective¹² are not necessarily contraindications. In contrast, active substance abuse and psychiatric disorders (for example, schizophrenia, borderline personality disorder, active suicidal ideation, or uncontrolled depression) should be considered *absolute* contraindications.

Once a likely candidate has been identified, he should be referred for a nutritional and psychologic assessment. At the Mayo Clinic, this referral involves a multidisciplinary team of physicians with a special interest in obesity, dietitians, psychologists or psychiatrists interested in behavior modification and eating disorders, and a surgeon with experience in bariatric procedures. The initial approach involves an introductory educational process, counseling about appropriate dietary and exercise programs, and an initial trial with a reduced calorie diet in conjunction with some type of supervised weight-loss program (such as Weight Watchers or TOPS [Take Off Pounds Sensibly]).

During the assessment process, the primary-care physician has an important role. He should inform the patient about the health risks of severe obesity and discuss the various available options. This concept cannot be overemphasized even though many physicians have a nihilistic attitude toward successful treatment of severe obesity. On the basis of the previously described studies of the dismal success rate of permanent, self-induced weight loss, attempts at diet-induced weight loss are usually futile. A bariatric operation, however, is a validated approach that has a much greater success rate of maintenance of an effective weight loss. The problem is not losing weight but rather maintaining weight loss.^{6,8} Ideally, the discussion of a possible weight-loss operation should be initiated by the primary health-care provider. *Realistic* expectations about the extent of weight loss and the positive effect on associated weight-related comorbidities (both organic and psychologic) should be discussed and contrasted with the morbidity and potential mortality of a bariatric operation. In summary, the patient must be well informed and convinced of the decision to proceed with the "aggressive" approach of a bariatric operation.

Expected Results of Bariatric Surgical Treatment

In general, with the current weight-loss procedures (not the former "gastric staplings"), patients lose a mean of about 50 to 60% of their excess body weight (weight above ideal body weight) or experience a decrease in the BMI of about 10 kg/m² during the first 12 to 24 months postoperatively. Thus, *realistic* expectations are that patients who weigh 136.1 kg will achieve a weight of about 90.7 to 99.8 kg (not 54.4 to 68 kg). Although several long-term studies have shown a tendency for modest weight gain (5 to 7 kg) after the first 2 postoperative years, long-term maintenance of an overall mean weight loss of about 50% of excess body weight can be expected.^{1,3,4} Of more importance, however, are the effects of this weight loss on the associated weight-related comorbidities. Several well-designed studies have shown that type II diabetes mellitus almost completely resolves in about 90% of patients. In about two-thirds of patients, hypertension disappears 4 years postoperatively. Serum concentrations of high-density lipoprotein improve, and total serum cholesterol and triglyceride levels decline substantially. Associated improvement in cardiac variables, such as left ventricular wall thickness and left ventricular function, has been demonstrated. In addition, pulmonary function and musculoskeletal disability improve concomitantly with the weight loss. The disappearance of symptomatic obstructive sleep apnea after early weight loss of only 15 to 20 kg is dramatic.⁴

In addition to the objective diminishments in medical comorbidities, substantial psychologic benefits of weight reduction are evident, but they are not as easily quantified. Subjective improvements in mood, self-esteem, self-confidence, body image, and activity level are usually appreciated by the patient and the family members. Associated decreases in depression, anxiety, and irritability have been noted.^{1,6}

Operations for Weight Control

Ideally, weight-loss operative procedures would be directed at the cause of obesity – the satiety center in the hypothalamus. Because we do not completely understand the etiology, operations are designed to treat the symptom – that is, overeating – and thus are designed to "fool Mother Nature." A brief anatomic description of the currently accepted operations is provided subsequently. A rudimentary knowledge of the anatomic changes and physiologic consequences involved will help physicians understand both the mechanisms by which these operations work and the associated problems that may arise due to the anatomic changes.

Four basic approaches have been used in the design of operations to induce weight loss (Table 3).

Table 3: Surgical Approaches to Weight Loss*

<u>Concept</u>	<u>Operation</u>
Induce global malabsorption	Jejunioleal bypass**
Limit oral intake per meal	Gastroplasty or "gastric stapling" vertical banded gastroplasty
Limit oral intake per meal and induce "dumping" physiology	Roux-en-Y gastric bypass
Induce selective maldigestion and malabsorption	Biliopancreatic bypass, extremely long limb gastric bypass

*See Figure 1

**Should no longer be performed.

Induce Global Malabsorption. – The first operation for treatment of obesity was a jejunioleal bypass or small bowel bypass (Fig. 1A). This approach involved bypass of more than 90% of the jejunioleum by allowing continuity of only 35.6 cm (14 inches) of jejunum and 10.2 cm (4 inches) of ileum; thus, both malabsorption and severe steatorrhea were established. In theory, this was an attractive concept because a change in eating habits was not necessarily imposed; however, this operation was associated with an unsatisfactory incidence of severe, potentially life-threatening complications including acute hepatic failure, late development of cirrhosis, oxalate-induced nephropathy, an immune complex arthritis, and a host of metabolic deficiencies. *This operation should no longer be performed.* Knowledge about this operation is important because many patients who had this procedure performed 10 to 25 years ago may now have cirrhosis, oxalate-induced nephropathy (which is reversible in its early stage), and so-called bypass enteritis. The last two-mentioned problems respond well to reversal of the jejunioleal bypass (see subsequent discussion).

Limit Oral Intake per Meal. – Because of problems with the jejunioleal bypass, the next approach developed was gastric partitioning or gastroplasty (the term "gastroplasty" suggests a change in the shape of the stomach). The concept was to partition the stomach into an extremely small upper part or "pouch" that communicates with the rest of the stomach through a narrow channel or "stoma." The introduction of surgical stapling devices substantially improved this operation, and thus these gastroplasty procedures have been referred to as "gastric stapling." Currently, the gastroplasty of choice is the vertical banded gastroplasty (Fig. 1B). This operation partitions the stomach into an upper pouch about the size of a person's thumb (into which ingested food enters) that communicates with the rest of the stomach through an 11-mm channel. This channel is wrapped or "banded" with a ring of nonexpandable prosthetic material in order to prevent the stoma from enlarging and counteracting the efficacy of the operation. This approach was attractive in theory because it is techni-

cally easy to perform and involves no "bypass" of the intestinal tract. This operation is effective in patients who maintain a diet of "meat and potatoes" because it prevents ingestion of large amounts of food; however, as many as 50% of patients quickly realize that high-caloric soft foods and liquids (such as ice cream and milk shakes) rapidly "slide" through the stoma. These patients change their diet, and their weight increases, many times as high as their preoperative weight. At

Mayo, we evaluated our results with vertical banded gastroplasty in 70 patients from 1985 through 1989.¹³ At 3 years postoperatively, only 38% of patients had lost (and maintained) at least 50% of their excess weight. Despite our unsatisfactory results, many groups throughout the United States still advocate this operation because of its safety and absence of severe metabolic side effects.

Limit Oral Intake per Meal and Induce a "Dumping" Physiology. – Because of the inability of the gastroplasty to prevent ingestion of high-calorie liquids, the gastric bypass (Fig. 1C) has been used by many surgeons, including our own group at Mayo. This operation separates the cardia of the stomach completely from the rest of the stomach. This proximal gastric pouch (volume, less than 30 mL) is drained directly into a segment of jejunum and thereby "bypasses" the vast majority of the stomach (which normally functions as a reservoir for large meals) and all the duodenum. This operation works *both* by preventing ingestion of large amounts of food at any one meal and by inducing a dumping syndrome (at least for the first year postoperatively) if the patient ingests a high-carbohydrate meal of liquids or soft foods (such as ice cream). This operation, in our experience and that of other investigators,^{4,9} seems to be effective for inducing and maintaining satisfactory weight loss (Fig. 2, *left panel*). Potential side effects of the gastric bypass are malabsorption of both iron (usually only clinically significant in menstruating women) and vitamin B₁₂; the latter necessitates daily oral or monthly parenteral supplementation.^{3,4}

Induce Selective Maldigestion and Malabsorption. – The partial biliopancreatic bypass (Fig. 1D) was designed for the *extremely* obese patient – the so-called super obese (greater than 225% above ideal body weight; generally, weight is more than 181.4 kg). This operation involves an 80% gastrectomy (to limit the volume of oral intake) and a rearrangement of small bowel anatomy to the extent that the biliary and pancreatic secretions are diverted to the distal ileum, 50 cm proximal to the ileocecal junction. The ingested food enters the small bowel in the proximal ileum but

does not mix with the digestive enzymes except in the distal 50 cm of ileum; thus, both a maldigestion and a relative malabsorption are established. This operation is the most effective bariatric procedure for inducing and maintaining intense weight loss (Fig. 2, right panel). Nonetheless, it has many potential side effects, such as deficiencies of the fat-soluble vitamins (A, D, E, and K) and malabsorption of iron, calcium, and vitamin B₁₂.⁴ Oral or parenteral supplementation of many of these vitamins and minerals may be necessary. Although some investigative groups have advocated this operation as their first-line surgical procedure, at Mayo, we reserve this technique for the super obese person with severe morbidity or, occasionally, for the patient in whom a previous bariatric procedure has failed and life-threatening weight-related morbidity is present. We have performed only 11 of these operations during the past 11 years.

Modified Procedures. – In addition to the four basic operations, several "modifications" have been used by surgeons around the world.¹ Most of these modifications have involved use of one of the four basic approaches with some additional "twist" to maximize efficacy of weight loss. Many of these modifications should still be considered experimental because well-controlled trials of efficacy and morbidity are lacking. The current "hot topic" is a laparoscopic (minimally invasive) approach to gastric "banding," in which an adjustable band is placed around the proximal stomach. This represents a type of gastric partitioning or gastropasty, and results will probably be similar to those with vertical banded gastropasty. In our opinion, long-term studies are needed before intense enthusiasm and universal adoption of this minimally invasive procedure can be advocated.

Expected Realistic Outcomes

Weight Loss. – The goals of bariatric surgical treatment are to induce and maintain long-term weight loss of at least half the preoperative excess body weight; with this amount of weight loss, the patient's weight should be low enough that the weight-related comorbidities are reversed or ameliorated. Although success is usually based on the amount or relative percent of excess body weight that is lost, the important criterion of true success is resolution of the direct weight-related comorbidities (Table 2). Although most patients lose more than 50% of their excess weight, a realistic goal is to attain a target loss of at least 50% of their excess weight;^{1,3,4} further weight loss is considered an added benefit. Because most patients achieve their target weight, they can consider themselves "successful," and this outcome is positive feedback. Patients must be counseled that they will not be "thin" as a result of this operation, but their weight will decrease to a more functional, healthy range; however,

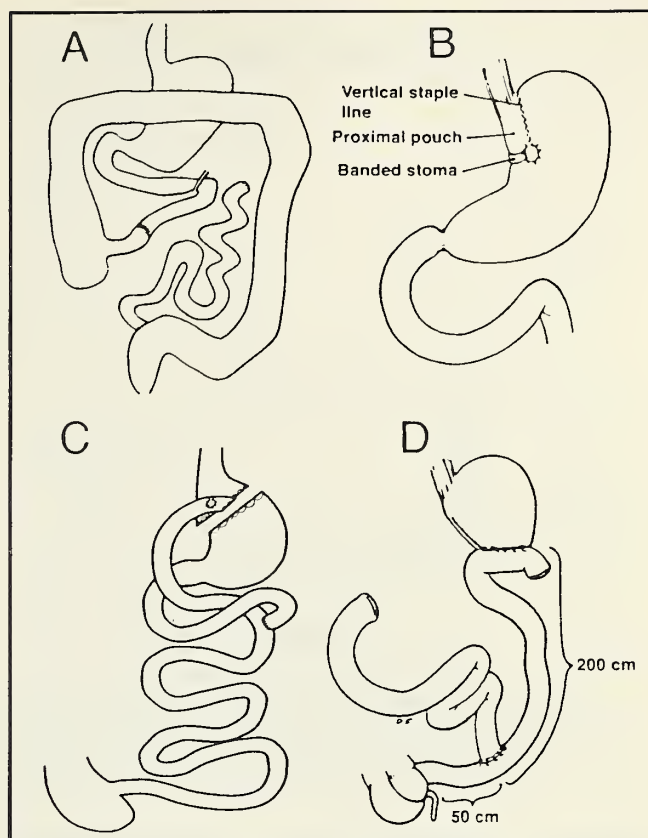


Figure 1: Bariatric operations. **A:** Jejunioileal bypass. Note that all but 35.6 cm (14 inches) of proximal jejunum and 10.2 cm (4 inches) of ileum are bypassed. **B:** Vertical banded gastroplasty partitions stomach into small-volume (less than 30 mL) pouch of proximal stomach along the lesser curvature that communicates with the rest of the stomach through a narrow (11 mm) channel banded with nonexpandable prosthetic material. **C:** Roux-en-Y gastric bypass separates cardia (volume less than 10 mL) from rest of stomach; ingested food enters gut directly into limb of jejunum. **D:** Partial biliopancreatic bypass – after 80% gastrectomy, remaining stomach is sewn to proximal ileum (250 cm from ileocecal junction), and pancreatobiliary secretions are diverted to distal ileum only 50 cm proximal to ileocecal junction, maldigestion is established and therefore malabsorption.

they will still be overweight (for example, preoperative weight of 136.1 kg would decrease to 90.7 kg). With satisfactory weight loss, adult-onset diabetes, hypertension, and hyperlipidemia and its consequences of coronary artery disease will diminish or resolve, and no further pharmacologic treatment will be necessary.⁴ The potentially life-threatening sleep apnea responds extremely well to weight reduction and usually completely resolves.⁴

Degenerative Joint Disease and Low-Back Pain. – Although destructive changes in articular surfaces do not resolve, further progression of articular cartilaginous destruction seems to be slower. More evident, however, is the pronounced diminishment in symptoms, probably due to the decrease in body weight on

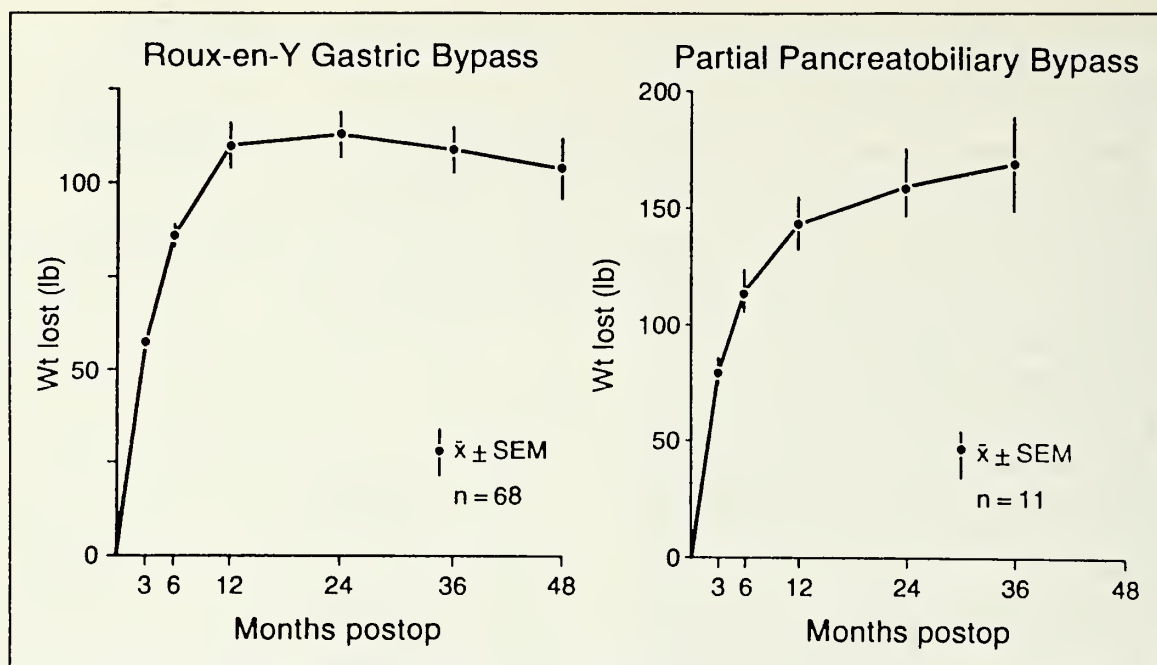


Figure 2: Weight loss after Roux-en-Y gastric bypass (left panel) and biliopancreatic bypass (right panel). lb = pounds; postop = postoperatively; SEM = standard error of mean.

dependent weight-bearing joints.⁴ Diminishment of knee and hip pain is greater than that of low-back pain. Long-standing morbid obesity can lead to irreparable joint destruction, but surgical arthroplasty is contraindicated in morbidly obese patients; surgically induced weight reduction should result in weight loss that will allow orthopedic joint replacement. This latter indication for an operative approach to weight loss may be justified in older patients (those older than 60 years of age) (see subsequent discussion).

Psychosocial Effects of Weight Loss

The psychosocial ramifications of extreme obesity and subsequent weight loss cannot be underestimated in our society. Our culture "worships" thinness, and both obvious and occult prejudice occur against obese persons in most social settings, including the home and workplace. With pronounced, visibly obvious weight loss, numerous changes occur in the social and interpersonal relationships of the patient. The patient may lose friends, may have sexual difficulties with spouse, and may be treated differently at work and elsewhere. These changes can be emotionally upsetting, and professional counseling is necessary not only preoperatively but also postoperatively. Before the operation, families and couples should discuss and even anticipate these changes in an attempt to prevent or recognize them postoperatively. Physicians likewise must be empathetic about the extent of the psychosocial changes.

Special Situations

Repeated Bariatric Surgical Treatment. – Bariatric operative approaches may fail, long-term weight loss may not be achieved, or severe complications may occur; in these situations, a revisionary operation is necessary. In our experience,¹² reoperative approaches were necessary for unsatisfactory weight loss, for metabolic complications of jejunoileal bypass, and for operative complications (less commonly) of previous bariatric procedures such as stomal obstruction, alkaline- or acid-reflux esophagitis, or anastomotic ulcer. Weight loss after reoperation was greater with conversion to gastric bypass than with conversion to vertical banded gastroplasty. We believe that metabolic complications after jejunoileal bypass should be managed not only by takedown of the jejunoileal bypass but also by concomitant conversion to a gastric bypass; reversal to normal anatomy leads to regain of weight in 80 to 90% of patients to their original weight. Although metabolic complications of jejunoileal bypass were corrected, a relative dissatisfaction was evident among several patients because of changes in eating habits induced by the gastric bypass; patients require specific counseling about these changes in eating habits before takedown of the jejunoileal bypass. Stomal complications and esophageal reflux symptoms were reversed in all patients. Thus, a previous bariatric operation should *not* be a contraindication to reoperation. Repeated bariatric surgical treatment is safe and effective in carefully selected patients.¹²

Chronologic Age. – Because of concern about higher mortality rates in older patients, age greater than 50 years was regarded as a potential contraindication to a bariatric operation.⁴ As bariatric procedures have become more widespread, numerous operations have been performed in selected patients older than 50 years of age. Many advances and improvements have been made in operative techniques and perioperative management. In our experience, age has not been a factor in the results of treatment.¹¹ Weight loss and its benefits were achieved in patients older than 50 years of age, with acceptable perioperative morbidity and no operative mortality. Subjective improvement in quality of life was reported by 81% of these patients. Severe obesity and advanced age further predispose patients to an increased risk of adverse outcomes. Age should not be considered a contraindication to operative treatment in patients with obesity-related medical conditions.

Survival Versus Quality of Life

In younger patients (those younger than 60 years of age), the goals of bariatric surgical treatment are to increase longevity and improve quality of life. In a patient older than 60 years of age who has morbid obesity based on weight criteria alone, a controversial issue is whether weight reduction will substantially improve long-term survival; however, quality-of-life issues now become paramount. If the patient has severe degenerative joint disease (as would be expected), joint replacement would be contraindicated because of the person's weight; therefore, mobility is decreased, ability to increase exercise is functionally and realistically unlikely, and quality of life is poor. This scenario may be a reasonable indication for bariatric surgical treatment in selected patients.

Summary

Obesity is a national health-care crisis. Because we do not understand the basic causes of overeating, the symptom – that is, overeating – must be treated. In selected patients, a weight-reduction operation will increase life expectancy, improve quality of life, and decrease long-term health-care expenditures by preventing the development of incapacitating, chronic weight-related morbidity.

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Obesity in Arkansas

Jyotin Vyas*

Nearly a third of adult Arkansans are overweight, according to the 1996 Arkansas Behavioral Risk Factor Surveillance System (BRFSS) survey.

That is indicative of the trend in high obesity rates in recent years. In 1995, 34 percent of Arkansans were overweight. For 1993 and 1994, the figures were 30 percent and 29 percent, respectively. Over a period of years, Arkansas has consistently been among states with the highest rates of obesity.

In 1996, 30 percent of all adult Arkansans were overweight, this included 33 percent of males and 27 percent of females. Thirty-eight percent of those 35-44 years old were overweight in comparison to only 13 percent of those between 18 and 24.

Among whites, 29 percent were overweight, compared to 34 percent of the nonwhites.

Education and income levels seem to be associated with obesity. Among high school dropouts, 36 percent were obese, compared to 33 percent of graduates and GED holders. Twenty-four percent of those with some college education were overweight compared to 27 percent of those with college degrees. Forty percent of those with household incomes less than \$10,000 were overweight compared to 27 percent of those with household incomes between \$20 - 25,000, and 24 percent of those with incomes between \$50-75,000.

Forty-six percent of obese people had bad health that prevented normal activity on at least two days in the month preceding the survey, while only 35 percent of those not obese had similar problems.

Forty-eight percent of adult Arkansans who have diabetes are overweight. Even moderate obesity, particularly abdominal obesity, can increase the risk of non-insulin dependent diabetes mellitus ten-fold.

Thirty-three percent of those who reported no physical activity were overweight compared to 28 percent of those who reported some physical activity.

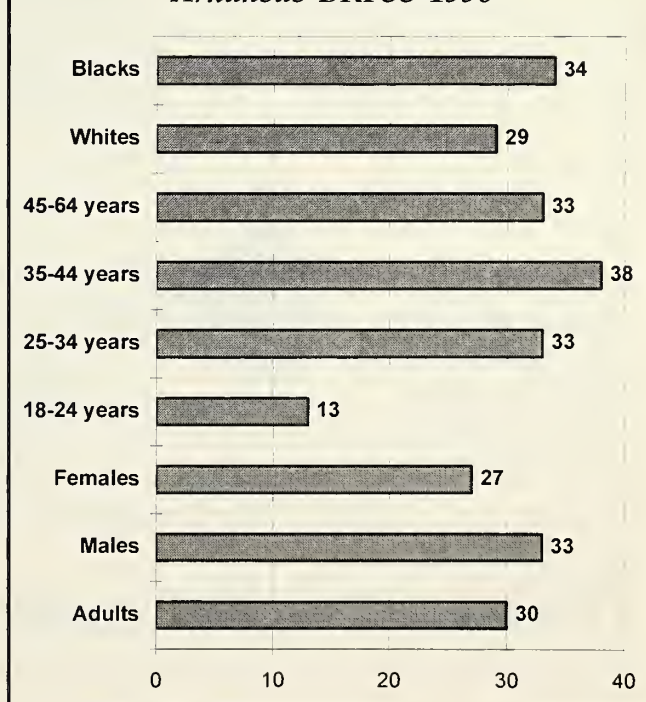
Most likely to be obese were those reporting less education, low income, no physical activity, cigarette smoking and low intake of fruits or vegetables.

The Behavioral Risk Factor Surveillance System (BRFSS) is the largest, continuously conducted, telephone

survey in the world. It is conducted by states under the guidance of Centers for Disease Control and Prevention (CDC). The survey is designed to identify and monitor modifiable risk factors for chronic diseases and other leading causes of death. Arkansas participated in 1991 and has been conducting this survey every month since January 1993.

The BRFSS survey is a telephone survey of adults (18 and over). There are two stages of randomization — first a random telephone number is dialed — all numbers are eligible for inclusion in the survey whether listed or not. Many numbers are non-working or business numbers. Once a residence is identified, a random member of the household is picked. If that member is not available at that time, an interview is scheduled for later. This two-step process is necessary to assure that the sample of interviews is truly representative of all Arkansans. The sample of successful interviews is then weighted to match the race, age and

Percent obesity in Arkansas by groups
Arkansas BRFSS 1996



* Jyotin Vyas is Health Program Analyst with the Center for Health Statistics at the Arkansas Department of Health.

Compute your own BMI

1. Get a calculator
2. Divide your weight in pounds by 2.2
(example: $185 / 2.2 = 84$)
3. Divide your height in inches by 39.37
(example: $72 / 39.37 = 1.83$)
4. Square the last number
(example: $1.83 * 1.83 = 3.35$)
5. Divide #2 by #4
(example: $84 / 3.35 = 25.1 = \text{BMI}$)

sex distribution of Arkansas. This helps to correct for "no phone" and "refusals." Arkansas currently collects 1800 interviews per year.

The total interview covers 78 questions. Topics included are AIDS, general health status, health insurance, diabetes, demographics, exercise, tobacco use, nutrition, weight control, fruit and vegetable consumption, and women's health. Two questions ask the respondents about their height and weight. From this, a measure of obesity, known as the Body Mass Index

(BMI) is calculated. The BMI is computed as weight in kilograms divided by height in meters squared.

At Risk (Obese): Females with a BMI greater than or equal to 27.3 and males with BMI equal to or greater than 27.8.

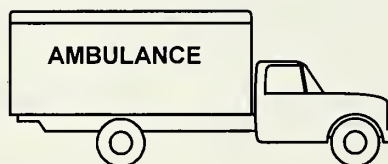
Not at Risk: Although a BMI of 22 - 23 is considered ideal, females with BMI less than 27.3 and males with BMI less than 27.8 are considered not at risk.

While new drugs are available, doctors advise reducing fat and calories and increasing exercise as the basis for successful weight-reduction. Anyone starting an exercise program should first consult a physician. In recognition of growing concerns about prescription weight-control pills, two more questions will be included in the 1998 survey. These questions are designed to enable us to monitor the utilization of prescription weight-control pills as well as the BMI at which the prescription was first issued.

Note: Since the data is self reported information over the telephone, there is no way to verify the exact heights and weights of the respondents. However, survey comparisons from year to year and state by state are still meaningful.

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Diagnosis and Treatment of Adolescents with Eating Disorders

Maria G. Portilla, M.D.*

Patrick D. Smith, Ph.D.**

Eating disorders can affect people of either gender, at any age, and can be fatal. Health care professionals should be knowledgeable about the presentation of these patients in order to identify them and to initiate early treatment. An eating disorder is a mental illness which has physical consequences, some of which can be life threatening or of a chronic, debilitating nature. In order to diagnose a patient with an eating disorder, one must be familiar with the definition, classification, presentation, and possible complications. This article will focus on adolescents since eating disorders can severely compromise their somatic and psychosocial development.

The definitions of Anorexia Nervosa and Bulimia Nervosa according to the Diagnostic and Statistical Manual of Mental Health Disorders (DSM-IV)¹ are as listed in Tables 1 and 2 on the following page.

A number of patients who fall into this category may have a combination of both anorexic and bulimic features or are diagnosed early in the illness and have not yet met all the criteria of the first two categories. Early intervention could benefit these patients by preventing some of the potentially irreversible complications such as osteopenia, or the life threatening complications such as cardiac arrhythmias.²

Symptomatology

Patients with eating disorders can present with a myriad of complaints or problems. These complaints or problems are brought to the health care provider's attention, for the most part, by the parent, as the patient is usually in denial. Weight loss or failure to gain weight are common presenting symptoms. Many patients

experience fatigue, weakness or dizziness due to an inadequate diet or excessive exercise. If the patient exercises excessively, it is usually done with the purpose of expending calories. Other common manifestations of malnutrition seen with these patients include cold intolerance and hair loss. Gastrointestinal symptoms, present in anorexic and/or bulimic patients, include abdominal pain, heartburn, vomiting, and constipation. Amenorrhea is associated with weight loss, excessive exercise and loss of body fat.³

The patient or parent/caretaker may give valuable information regarding the patient's intake or behavior around food. For instance, many patients with eating disorders avoid certain foods.⁴ Some avoid red meat and dairy products because of their fat content. A number of these patients adopt vegetarianism in order to avoid fat-containing foods. A small group of patients rationalize their limited intake to "eating healthy," not realizing that a balanced diet includes carbohydrates, protein and fat. This small group might restrict their intake to fruits and vegetables, which could lead to serious nutritional deficiencies. Some patients drink excessive amounts of liquids in order to curb their appetite. Unusual eating behaviors such as cutting their food into very small pieces, eating slowly and skipping meals can be indications of a potential problem.⁵ Engaging in these behaviors is often explained by their obsessive pursuit of thinness which is characteristic of anorexia nervosa.

A significant number of patients with anorexia nervosa obsess about counting calories and fat grams. They may be knowledgeable about the caloric and fat content of every food in the market. They are, however, typically unaware of their individual caloric needs, determined by age, height, and level of activity. An excuse for not eating commonly used by these patients is lack of hunger. A number of patients can stop experiencing hunger if they starve themselves and ignore their hunger drive repeatedly. Purging behaviors, prevalent in bulimic patients, are usually a hidden or secret behavior, of which the parents may or may not

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Table 1: DSM-IV Criteria for the Diagnosis of Eating Disorders

Anorexia Nervosa

*The refusal to maintain body weight at or above a minimally normal weight for age and height (weight loss leading to maintenance of body weight less than 85% of that expected; or failure to make expected weight gain during the period of growth leading to a body weight less than 85% of that expected).

*Intense fear of gaining weight or becoming fat even though underweight.

*A disturbance in the way in which one's body shape or weight is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight.

*Amenorrhea (postmenarchal-females) i.e. the absence of at least three consecutive menstrual cycles.

Bulimia Nervosa

*Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
a) eating in a discrete period of time (within any two hour period) an amount of food that is larger than most people would eat during a similar period of time under similar circumstances

b) a sense of lack of control over eating during the episode (e.g. feeling that one can not stop eating or control what or how much one is eating)

*Recurrent inappropriate compensatory behavior in order to prevent weight gain such as self-induced vomiting, misuse of laxatives, diuretics, enemas or other medications, fasting, or excessive exercise.

*The binge eating and inappropriate compensatory behavior both occur on average at least twice a week for three months.

*Self-evaluation is unduly influenced by body shape and weight.

Table 2: DSM-IV Criteria for the Diagnosis of Eating Disorders

Eating Disorder, not otherwise specified

*For females, all of the criteria for anorexia nervosa are met except that the individual has regular menses.

*All of the criteria for anorexia nervosa are met except that despite significant weight loss, the individual's current weight is within the normal range.

*All of the criteria for bulimia nervosa are met except that the binge eating and the inappropriate compensatory mechanisms occur at a frequency less than twice a week or for a duration of less than three months.

*Regular use of inappropriate compensatory behavior by an individual of normal body weight after eating small amounts of food (e.g. self-induced vomiting after the consumption of two cookies).

*Repeatedly chewing and spitting out but not swallowing large amounts of food.

be aware. Such behaviors include vomiting, use of laxatives and/or diuretics, or excessive exercise; all of which are performed for the purpose of burning off or eliminating calories.⁶ Parents of patients who binge at home may notice large amounts of food disappearing or find that the patients are hiding food.

Psychological Symptoms

A necessary characteristic of patients with eating disorders is that they have a distorted body image.⁷ Even though they may be underweight, they think of themselves as being overweight. They might also have a distorted body image of others and view extremely thin models as being overweight.

Frequently, patients with eating disorders will alienate themselves from their friends and family. They stop participating in social activities and may spend the majority of the time at home, in their room. This usually accompanies depressive symptomatology, such

as insomnia, feeling sad, etc. These patients frequently deny that they have a problem, and therefore will not seek help on their own. Bulimic patients may engage in shoplifting behavior to acquire food or laxatives and diuretics. Patients who vomit after meals will usually go to the restroom immediately after meals.⁸

Patients with eating disorders may spend an inordinate amount of time thinking about food or ways to get rid of it once eaten. Many may be excellent cooks or excessively focused on food related activities (e.g. collecting recipes, vegetable gardening).

In many cases, the eating disorder eventually becomes the central focus of the whole family absorbing, not only the patient, but also siblings and parents in the process. The parents become quite concerned with the peculiarities displayed by the patient during mealtimes, as well as the weight loss and other symptomatology. The patient becomes more set in his/her behavior and wants to control his/her situation, thus

creating a battleground revolving around food.⁸

A number of patients with anorexia nervosa exhibit obsessive-compulsive behavior. These patients are also usually over-achievers. They may be involved in multiple athletic and extracurricular activities some of which may include leadership positions. Despite this involvement and excellent academic performance, these patients usually have low self-esteem.

Physical Examination/Pertinent Findings

Few patients with eating disorders have grossly abnormal findings on physical examination. Abnormalities tend to be subtle and therefore, easily missed. The most important information is the weight, height and weight for height measurement. It is helpful to have previous weight and height measurements if they can be obtained from previous physicians in order to determine if the patient has followed his/her percentile or has dropped off. The Frisancho tables on weight according to age, gender, and height can give precise information on the patient's nutritional status.⁹

Vital signs are usually abnormal, especially in the patient with anorexia nervosa. These patients have had a decreased nutritional intake for a significant amount of time, which lowers their metabolism. Because of their low metabolism these patients can be hypothermic, bradycardic, and hypotensive. They acquire compensatory mechanisms such as decreased heart rate and decreased blood pressure.¹⁰ Blood pressure in an anorexic patient can run as low as 60/40. Heart rates can vary from 30 to 60 bpm.

Some patients who engage in vomiting may have calluses over their knuckles, if they induce vomiting with their fingers. However, many bulimic patients use other items beside their fingers such as toothbrushes or spoons, or they may eventually vomit spontaneously. Patients who vomit frequently may also have parotid enlargement. Patients who use laxatives or diuretics frequently may have peripheral edema. A number of anorexic patients may have lanugo over their trunk to compensate for the decreased subcutaneous tissue.

In general, anorexic patients will show obvious signs of malnutrition, such as the decreased subcutaneous tissue and low weight. Bulimic patients, on the other hand, may be normal weight or slightly overweight.

Medical Complications

There are numerous potential physical complications as a result of food deprivation or purging behaviors.¹¹ Health care providers need to be aware of life threatening problems as well as potentially irreversible complications.

Fluid and electrolyte disorders are seen in patients with anorexia and bulimia nervosa. Anorexic patients

may restrict oral liquid intake resulting in dehydration. They might also drink large amounts of fluid before their visit to the physician in order to feign weight gain, resulting in water intoxication and hyponatremia.¹⁰ Bulimic patients can exhibit varied electrolyte disturbances as a result of their purging modes. Vomiting can cause hypokalemic hypochloremic metabolic alkalosis, as can the use of laxatives or diuretics.^{12,13} It should be noted that most patients who lose weight solely by means of diet restriction usually have normal electrolyte values. Therefore, a normal electrolyte panel does not rule out an eating disorder.¹⁰

Cardiac complications are also varied. The most common are cardiac arrhythmias secondary to changes in the sympathetic and parasympathetic tone in the anorexic patients or to electrolyte disturbances in the bulimic patients.¹⁰ QT interval prolongation is most concerning as this may account for sudden death in these patients.¹⁰ Ipecac use can cause a cardiomyopathy, which can be reversible if detected and treated in the early stages.¹⁴ Patients with eating disorders are at risk for congestive heart failure during the refeeding process if not done in a gradual, stepwise manner by experienced personnel.¹⁰ Echocardiographic studies in anorexic patients found them to have decreased heart size and mass. Because of compensatory mechanisms (i.e. decreases in blood pressure, heart rate, blood volume and metabolic demands for oxygen delivery) these patients usually do not have heart failure.¹⁰

There are multiple effects on the endocrine system in patients with eating disorders. Most of these endocrine malfunctions are thought to be due to a hypothalamic-pituitary dysfunction. Amenorrhea is one of the criteria for diagnosis of a patient with an eating disorder. It usually occurs when the patient has lost 10-15% of his/her body weight. It is thought to be secondary to either malnutrition or a neurotransmitter abnormality and its effect on the hypothalamic/pituitary/ovarian axis.³ Prolonged amenorrhea and hypoenestrogenemia are associated with osteopenia.¹⁵ Hypercortisolism, seen both in anorexia and bulimia nervosa, also appears to play a role in osteopenia and osteoporosis as well.¹⁰ Another endocrine complication seen in some patients with anorexia nervosa is the relative hypothyroidism thought to be secondary to a lack of pituitary response to thyrotropin-releasing hormone. These patients present with signs such as dry skin, hair loss, bradycardia, hypothermia, and hyporeflexia.^{16,17} Finally, short stature has also been associated with malnutrition in patients with anorexia nervosa.⁸

Gastrointestinal problems are seen frequently in both anorexic and bulimic patients. In fact, they are the most common physical complaint. They range from delayed gastric emptying and constipation in the anorexic patient to esophagitis and abdominal pain in

the patient engaging in purging behaviors.¹⁰

Of note, mortality rates have been reported to be from 0-22% with the greatest incidence due to suicide.¹⁸ As mentioned before, cardiac complications are the major medical cause for death in these patients.

Treatment

Eating disorders are multifaceted and therefore, patients with this disease seem to benefit from a multidisciplinary approach. Since these disorders have a psychological basis with physical consequences there needs to be psychosocial, medical, and nutritional components to treatment. The patients as well as the family suffer during this illness and therefore, the family should be included in the treatment protocol as well. Patients during the therapeutic process with the therapist's help address the issues which may have contributed to their illness as well as learn ways to prevent the use of abnormal eating behaviors as coping skills.²

The nutritionist can help the patient restore their normal nutritional status by gradually increasing their caloric intake so as to prevent heart failure. He/she also educates the patient regarding nutritional requirements.

The physician has several roles in the treatment of a patient with an eating disorder. Their first obligation is to recognize and identify a patient with this disorder. They also need to monitor the patient for the development of any medical complications mentioned previously. The physician also works closely with the nutritionist in the re-feeding process and both educate the patient with regard to normal eating. The physician should also recognize the need for hospitalization when outpatient therapy is failing or if there are life threatening complications.² Other personnel are vital in the team care of these patients, such as the nurse, who serves as a direct adjunct to the physician, and the social worker who can address the patient's social difficulties as well as the patient/family interaction.

Short term goals should include nutritional stabilization and treatment of any existing medical complications, the most critical of which is the gradual resto-

ration of normal cardiovascular function. Long term goals are aimed at restoration of normal nutritional status, prevention of long-term complications and a positive self-image as well as high self-esteem.

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Weight Loss, Nutrition & Preventive Medicine

A Guide for Patients

Lee Abel, M.D.*



I. Introduction

Obesity is a very common and yet poorly understood problem. Population surveys show that the percentage of the U.S. population that is obese has been increasing during the past two decades. This is despite the fact that our society leads the world in the production of weight loss diets and programs. The number of weight loss clinics and the number of books published each year purporting new diets for weight loss attests to both how common obesity is and to the difficulty of losing weight. It also shows that people are very serious about wanting to lose weight and will spend a large amount of money pursuing that goal.

From a medical perspective, a weight loss program must be both effective and safe. Effective means not only losing weight but also keeping it off. Safe means the diet must be nutritionally sound and promote healthy eating. This does not imply that we completely understand what good nutrition entails. Nutrition, like obesity, is an area where we still have much to learn. We are learning more, and at times we seem to be drowning in daily media reports about the latest research on nutrition. Today's "factoid" about salt, nuts, eggs, margarine, coffee, beta carotene, pasta, garlic, and so on, often seems to conflict with yesterday's news. There are many reasons for this. The TV news is often driven to sensationalize rather than to truly inform. Their reporting tends to be superficial and to emphasize any differences or conflict with previous information. Confusion can also arise just because of the nature of scientific research. A good research study often raises more questions than it answers. Our knowledge grows by bits and pieces, and some wrong

turns are inevitable. How each study conclusion fits into the framework of what is already known, and whether future studies will prove confirmatory are important questions that require time to answer. Then too, nutrition experts don't always agree with each other; they simply interpret the data differently. This confusion (and I'm sometimes confused by it all too) can lead some people to conclude that we don't know anything. This is unfortunate. We do know a lot, we just have a lot more to learn. What follows is my interpretation and present understanding of weight loss, good nutrition, and preventive medicine. This will evolve and change over time as new research becomes available. In writing this I have attempted to answer questions that I'm often asked by patients who want to lose weight.

II. Why more obesity?

It has recently been shown that genes play a large role in determining who is at risk for obesity. Some people inherit a tendency to obesity, and some do not. However, since the genetic makeup of the population has not changed in the past couple of decades, genes cannot really account for the increasing rates of obesity.

What then does account for this change? The simple answer is that we are consuming more calories than we use. Two factors seem important: 1) We are more sedentary (less physically active) than in the past, and 2) We eat lots of fat.

In order to reverse the increasing rates of obesity in our society, these two factors have to be addressed. This sounds quite simple, but the simple answer by definition leaves out the complexity. In the most recent surveys, it seems that the amount of fat we are eating is staying the same (or even decreasing), yet obesity is still increasing. Two things are apparent from

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this: a) all calories count: if one eats enough food, even though it may be labeled "low fat," weight is still gained; and b) we are still eating a lot of fat, although we often do not recognize this. I've heard people say they were eating a "no fat diet." Even if a no fat diet were really possible, it would not be desirable or healthy. It is also important to understand that sedentary does not mean unbusy. In our modern society it is possible to be very busy, yet very physically inactive.

III. How to lose weight

What does an individual actually need to do to lose weight and keep it off? The key factor seems to be lifestyle change. This may involve changing what we eat, but more importantly, what we think. First we will examine exercise, then diet, and then other methods for weight loss and related topics.

A. Exercise

1) Why Exercise?

Exercise is the single best predictor of who will succeed at weight loss. It is very difficult (some would say impossible) to lose weight and keep it off without exercising. There are many reasons for this, but even if you do not lose a pound, you will reap benefits by regularly exercising. There are many excellent forms of exercise. I believe walking is a good exercise for most people to start with. It is very simple and takes little equipment. You will need a stopwatch (wristwatch with stopwatch function is nice) and a good pair of walking shoes. Keep a written record so you can keep track of your progress, and initially you will need to walk "by the clock," that is for a specific amount of time and no longer. You may need to start with as little as a ten minute walk a day and increase by as little as one minute a week (i.e. second week walk eleven minutes a day, third week walk twelve minutes a day). When you can walk 45 minutes slowly and without stopping, then you can begin to increase the pace. A reasonable goal is to work up to at least a 45 minute brisk walk six days a week. It is probably a good idea to consider more vigorous aerobic exercise (such as running) only after a walking program is well established. Resistance training (lifting weights) has health and weight loss benefits, and some people may want to do this in addition to an aerobic program.

The most important aspect to exercise may not be how many calories are burned or how much weight is lost. As we start to become more fit, our ideas about what is possible may change. Becoming more fit can

change our self image, but it may be necessary to change our self image in order to become more fit. If the last time you exercised was eighth grade gym class (not a pleasant memory for me), it may be difficult (and scary) for you to see yourself as a "regular exerciser." I hope what follows may help you in seeing yourself as an exerciser, regardless of how unathletic you may think you are.

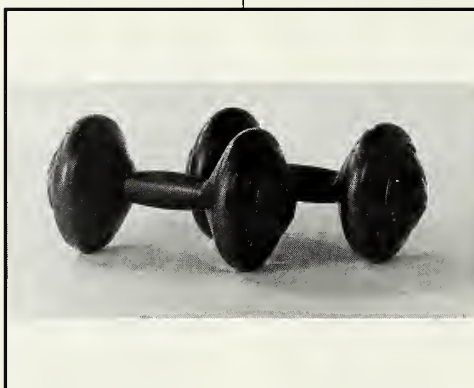
If it has been a while since you last exercised, then you will want to start slow and gradually increase. I went for a three-year period during my thirties when the only exercise I did was mow the grass. I felt I didn't have time to exercise. One day a friend (to whom I will always be grateful) who ran regularly stopped by and told me I was going running. My old running shoes were too worn to run in, so we actually had to go to a store first so I could purchase a pair of running shoes. I remember walking into the runner's store with my grass stained shoes and feeling quite out of place. When we finally went to run it didn't last very long. I was shocked at how little I was able to run. My mind did not think my body was as out of shape as it was. Motivated by some embarrassment and my brand new running shoes, I started running again. It was hard. I had injury after injury because I kept thinking I should be able to do more. It took months until I was running a reasonable

distance without problems. To get started, be a good friend to yourself and take yourself out to exercise. Just remember to start slow.

2) Barriers to Successful Exercise

a) *Time.* If you have a strong desire to lose weight and feel better, then you will want to find time to exercise. Perhaps you will not be able to add exercise to your current schedule if you already feel pressed for time. Finding time may require simplifying and re-prioritizing. For example, recently a patient told me how much time she had to spend cleaning her house and that she didn't have time to exercise. I asked if other family members could help out more or if maybe the house didn't have to be cleaned so well. Maybe taking care of our body is more important than taking care of our house. Being too busy is a common obstacle to good health habits and a significant source of stress. Slowing down and simplifying may, in and of itself, be a healthy step.

b) *Place.* A very common reason given for not exercising is that the weather has been too hot, too cold, or too rainy. If you are very attached to the belief that you cannot walk outside unless it's "nice," then walk-



ing indoors on a treadmill is a good option. However, many people who exercise regularly find being outdoors is very satisfying. It's possible to exercise outside on almost every day of the year, provided certain common sense measures are taken (proper clothing, plenty of fluids, etc.). This is true even if one lives in a hotter or colder climate than Arkansas. I'm glad I have a treadmill when the roads are icy or if there's thunder and lightening, but I really prefer being outdoors.

It's easy to get so busy that we lose touch with the wonder of the natural world. When you exercise outdoors you are close to the smells, the sounds, and the sights. The weather in the spring and fall is very inviting for exercise. It takes more desire (no, not craziness) to enjoy exercising outdoors in the summer and winter. Many people do succeed in this. Once you've done it for a while, the heat and cold become no big deal. Or maybe it is still a big deal, but in a different way. You may find you feel better about yourself when you let go of the image of yourself as being unable to withstand (or enjoy) anything but "nice" weather. As you exercise outdoors in different weather conditions you may gain more respect for your body and a more positive attitude about your own capabilities. Let somebody else complain about the weather, you can go outside and enjoy it.

c) *Foot pain.* Studies show that about 80% of American women wear shoes that are too small for their feet. And those shoes are often not shaped in a way that fits the foot shape (a too narrow toe box is very common). A properly sized, well cushioned athletic type walking shoe can do wonders for painful feet.

d) *Knee pain.* A sedentary lifestyle and being overweight increase the risk for developing arthritis of the knee. If you already have knee arthritis, a regular walking program may be quite helpful at improving your functioning. The scientific literature shows that walking can decrease the arthritis pain and may even delay or eliminate the need for knee surgery. Exercise seems to nourish and strengthen the joints, ligaments, and muscles.

e) *Back pain.* The first thing patients are often told after back surgery is that if they want to avoid another back surgery, they need to start walking and continue it lifelong. Standing in one position for long periods of time can be stressful for the back. Walking is good for it. If walking has ever made your back hurt, then you probably did more than your fitness level was ready for. As mentioned before, it is necessary for some people to start with very little walking and very gradually build up.

f) *Injuries.* If you prevent the winner of the Boston Marathon from exercising for a brief period of time (a few weeks), they will lose their fitness level. If that person, even with their incredible physical gifts, tries to resume exercising at their previous level they will

probably get injured. They would have to start at a lower level and work back to their previous fitness level. We cannot store fitness (we can store calories). Most people who exercise vigorously occasionally have an injury. Regular exercisers are not some special group that is immune to injuries. The people who are successful with long term exercise do not let injuries lead to a permanent cessation of exercise. If you are committed to exercising, injuries don't mean quitting, but they may necessitate cutting back on the intensity level for a while. Fortunately, walking is associated with few injuries. Remember the guideline: start slow, gradually increase, and exercise year-round.

g) *When.* There is no best time to exercise. Whatever time works best for your schedule is the best time. I used to exercise after work, but since my children were born I find exercising early in the morning works best. For many years every time my alarm clock would ring, my brain would immediately begin to formulate excellent and persuasive reasons why it would be best for me to stay in my comfortable bed rather than get up. I found that I had to just drag myself out of bed almost without thinking about it or my plans to exercise were lost. Although I still love to sleep, my brain no longer comes up with excuses at the sound of the alarm, at least on most mornings. It helps that I usually look forward to my run and have found that I really enjoy being outside in the early morning. Perhaps being over 40 has something to do with it, but if I can become a morning person probably anyone can. The secret may be to, as the shoe ad says, "Just do it." You probably don't stand in front of the mirror debating whether you feel like brushing your teeth today, you just do it. Exercise has to be in that category of things you do, whether you "feel" like it or not.

h) *Fatigue.* Fatigue may be the most common reason people give for not exercising. To paraphrase the author, runner and Cardiologist, Dr George Sheehan: "Exercise doesn't take energy, it creates it." Exercise of any type can improve your energy level, stamina, and endurance. Dr. Sheehan felt that exercise could add life to a person's life whether they were well or ill. To paraphrase again: "exercise doesn't take time, it produces time."

Dr. Sheehan's words are inspiring, and I believe there is a lot of truth in them. However, it is possible to read too much into his statements. Feeling fatigued is a normal part of life, and nothing will eliminate that. Though I now can usually get up with the alarm without a major struggle, I can't claim I always feel good. Some mornings I feel really bad. If it's cold and dark outside I might even indulge in feeling sorry for myself and envy everyone else in the world who, I'm positive, is still blissfully asleep. I run anyway, and after a while, even though the temperature may be in the teens, it doesn't feel cold. My tiredness and self

pity are replaced by a feeling of being very fortunate. And maybe as I finish my run the sun is just starting to rise, and it is glorious. Sure, after a run I'm tired again, but it's a good tiredness, a relaxed and calm feeling. I occasionally see a patient who starts exercising and then complains that it hasn't made them feel better. I don't always have a good answer for them. Maybe they expect too much. Maybe they are too focused on results. Maybe it would help to focus more on the journey and less on the destination. Exercise is very beneficial; it is not magic. If you're open to it, it can give some magical moments.

i) *Boredom.* Perhaps you say you don't like to exercise. It's just too boring. You have been unable to find anyone to exercise with, but if you could, you feel it might make it less boring. However, at one point in your life you did like to exercise. It was not called exercise, but that's what it was. You would even do it by yourself because it was fun. It was called *playing*; running, skipping, jumping, tumbling, and climbing. Young children naturally love to use their bodies physically. This simple pleasure can get lost in our busy lives, but it can be rediscovered. If you see exercise as painful and boring, you will probably never exercise regularly. You can choose otherwise; most people who exercise regularly see it as relaxing and fun.

Exercising alone has some good aspects. It offers a time to reflect, to listen, and to ponder. Spending some quiet time with yourself in exercise can provide insight. Insight that may not occur under the usual circumstances. The simple and satisfying rhythm of physical exercise can sometimes clear the mind and give a new perspective. Problems and worries may begin to look a little different.

Whether you exercise alone or with a friend or spouse, you may find yourself gaining a deeper awareness of what a blessing it is to have a body that is sound enough to exercise. When we take time to care for our bodies by exercising, we are showing gratitude for the gift of life. It is a way to say thanks and a way to feel thankful. Being in touch with gratitude can be a powerful remedy for boredom and fatigue. Feeling thankful feels good.

B. Diet

1) Eat Healthy

It all starts with this. "Dieting" in the sense of eating a different way for a period of time to lose weight, and then resuming the usual eating pattern, doesn't seem to work. Maybe one reason is that "diets" can impose a sense of deprivation, and the mind inevitably longs for such hardship to be over. A different approach is needed, and eating healthy is a good place to start. Most overweight people do not eat enough fruits, vegetables, beans, and whole grain products. A helpful step in losing weight for many obese individuals will be to increase the consumption of these foods. Five servings of fruits and vegetables a

day as recommended by the National Cancer Institute and other health organizations is a minimum goal, not a maximum. Fresh fruits and vegetables (when available) are desirable both for taste and for their high nutrient values. Variety is also important. The old aphorism "An apple a day keeps the doctor away" might be more precisely phrased as "Several fruits and vegetables a day help keep illness away." More precise, but not as catchy.

In the United States, beans are the Rodney Dangerfield of foods—they get no respect. In fact, beans are a natural wonder: they are packed with nutrition, low in fat, and lend themselves to a vast array of cooking styles and cuisines. Whole grains are also underutilized and underappreciated (more on this later). There are many ways to increase consumption of whole grains such as occasionally using brown rice instead of exclusively white rice.

2) Fat

Fat is not evil. It is a part of all living cells and an essential nutrient. It is also fun to eat. From a weight loss perspective, fat is important because it is a very concentrated form of calories, i.e. a little bit has a bunch of calories. Because fat is so pleasurable to eat, it's easy to eat a lot.

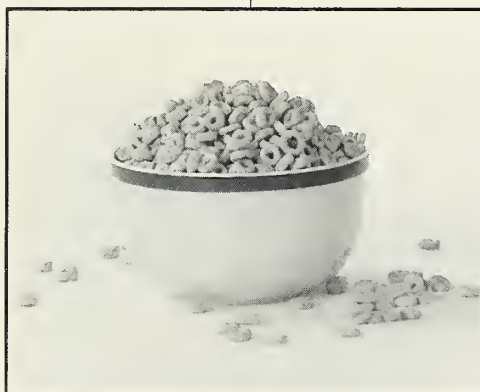
From a health standpoint, the fat story is very complex. Being a non-expert, I'll have to keep it simple. Bear with me, the terminology is confusing. Though all fat has the same number of calories, some types increase our risk for disease (atherosclerosis or blocked arteries and maybe cancer). Saturated fat seems to be the most harmful, more so than cholesterol. However, saturated fat and cholesterol are good friends who are often found together. Unsaturated fat (polyunsaturated and monounsaturated fat) seems not to be associated with artery blockage disease. Fat from animals tends to be saturated while fat from plants tends to be unsaturated. (Coconut and palm kernel oil are notable exceptions.) Some restaurants and food processors like to advertise that their cooking oil or their product contains no cholesterol, and is "all vegetable oil." They hope you will hear "no cholesterol" and "vegetable" and think healthy. Unfortunately, this may not be the case. Vegetable oil doesn't contain cholesterol (plants don't make it) but it can be factory altered to become more saturated. In general, saturated fat is a solid at room temperature and has a longer shelf life than poly- and monounsaturated fat, which tend to be liquid at room temperature. To increase shelf life, liquid oils (vegetable oils) are saturated or partially saturated (also called hydrogenated). This process makes the fat more unhealthy. So the food product on the shelf may last longer, but if you eat a lot of it you may last shorter, so to speak.

3) Breakfast

Do not skip breakfast, just eat the right breakfast.

Some overweight patients skip breakfast in the mistaken assumption that this will help them lose weight. Dr Ernst Wynder of the American Health Foundation postulates that "eating breakfast can be beneficial because it may set the nutritional 'thermostat' for the day." He cites work that shows that adults who regularly eat cereal for breakfast have on average lower daily intake of fat and cholesterol. Not eating breakfast won't help you lose weight, and it can play a role in the development of obesity. Dr. George Bray, writing in Harrison's textbook of medicine, notes that "people who eat breakfast have a lower risk of developing obesity than individuals who do not."

Studies show that a high fiber intake is associated with a decreased risk of heart disease and perhaps certain forms of cancer. Fiber consumed as whole grain cereal may have special benefits. A recent report has linked consumption of whole grains with a lower risk of diabetes. Researchers are uncertain how much of the beneficial effects of whole grains is really due to the fiber and how much is due to other substances found in whole grain. As noted by Bonnie Liebman of the Center for Science in the Public Interest, whole grains are a good source of fiber but also contain many other potentially beneficial substances such as antioxidants, lignans, phenolic acids, phytochemicals, and minerals like selenium, copper, zinc, and magnesium. A bowl of whole grain cereal (Cheerios, shredded wheat, Grape-nuts, etc.) and low fat milk is very nutritious. It is also simple and quick. The take home message about breakfast is, "Don't leave home without it."



4) Meat

You do not have to become a vegetarian to lose weight, but if you are eating meat every day, then it may be helpful if you reduce your meat consumption (i.e. have some meat free days). Americans consume a lot of meat, and meat is a major source of fat (especially saturated fat) in the typical American diet. In addition, if you eat less meat, you can eat more fruits, vegetables, beans, and whole grains. Some people are concerned that if they don't eat meat they will not get enough protein, but it's actually easy to get plenty of protein and eat no meat. Low fat dairy products are an excellent source of protein (and calcium), but it's even possible to get enough protein without dairy or meat. A vegetarian diet seems to be associated with less obesity, but more importantly with less heart disease and cancer. When you do have meat, choose cooking methods that don't add fat (if you love chicken

fried steak with gravy then save it for your birthday and have it every single year). Skinless chicken and fish are well known to be relatively low in fat, but certain cuts of red meat like sirloin steak (select grade) and pork tenderloin are also. My recommendation to eat less meat has to be placed in perspective, like almost every other statement I will make. If you pass on a serving of chicken breast for a serving of a fatty vegetarian lasagna, then you may have increased, not decreased, fat and calories.

5) Snacks

Most snack food lives up to its other name: junk food. Studies have shown that some obese people, for reasons that are not understood, seem to misperceive how much they are eating, and so snacks are risky. If you are eating three nutritious meals a day, your body does not really require snacks. Advertising has convinced many people that "snacking" is normal and necessary, but aren't there better things to do with your time? If you do snack, then eat fresh fruits (apple, orange, etc.) or fresh vegetables (carrot sticks, celery sticks, etc.). There is some information to suggest that "grazing" (eating small amounts frequently) can be healthy, but it all depends on the type of food being consumed. Fake fat like olestra is not nutritious (some scientists are concerned that it may be harmful by preventing absorption of certain nutrients), and it is unlikely to help you lose weight. It's really more an excuse to continue to eat junk food. The bottom line is that you are not junk, so limit the amount of junk food you eat.

6) Sweets

Sweets are a wonderful pleasure, and like most of life's pleasures they only give pleasure when used in moderation. Because we are human, this simple concept is difficult to apply. For example, it's a real challenge for me to eat a single bowl of Oreo cookie ice cream. I too often mindlessly eat several bowls (or to my teenage daughter's utter horror, I eat right from the container). I realize too late that I've overindulged and my stomach lets me know it is quite unhappy. I've not found it easy to curb my tendency to overeat Oreo cookie ice cream, so what works best for me is to usually avoid having it in the house.

The ready availability and vast quantities of sweets may have both dulled our appreciation of sweetness and at the same time increased our desire for sweets. A century ago when a child received an orange in their Christmas stocking, it was seen as a wonderful treat.

Oranges haven't changed; they are still a fragrant and sweet treat, but in our abundance we may not notice or appreciate. Giving up soft drinks ("diet" or regular) can be one way to help regain the appreciation of natural sweetness and at the same time lessen the craving for sweets. Soft drinks are, of course, just junk food. If you must spend money for a drink then try bottled water.

7) Convenience Food

Fast food and commercially prepared foods at the grocery store are often high in fat and low in nutritional value. If labeled "low fat," then these products often are high in calories from large amounts of added sugar. If they are labeled both low fat and low calorie then they sometimes have more in common with plastic than with good food. It may take some creativity to find alternatives, but it is worth the effort. Preparing a healthy supper can be simple and quick. Around my house on a busy weeknight we may microwave a couple of vegetables and serve this over pasta or rice (maybe with some cheese on top), and that's a meal. The kids also drink some milk and eat a dessert - occasionally they'll even accept fruit as a legitimate desert. Eating the leftovers for lunch the next day will likely be healthier (and less expensive) than any fast food meal.

Dr. William Castelli, the director of the Framingham Heart Study, believes that one reason it is so hard to change eating patterns is that most of us have a relatively small number of dinner menus (perhaps 10 or less), which we repeat over and over again. Some people seem to believe their options are to eat their usual way (one of those 10 recipes) or to eat salads. Eating salad every day doesn't sound very exciting. But this may be very common as evidenced by a recent report in the Nutrition Action Health Letter which reported that the average woman aged 19 to 50 gets more fat from salad dressing than from any other single food. We need something besides the usual recipes and living on salad. Check out some of the recipes in the books listed at the end of the article. You'll find recipes that use vegetables, beans, and whole grains to create dishes that are hearty and delicious. Since most of us didn't grow up eating dishes like these, you may be pleasantly surprised to see what is possible with these ingredients.

8) Eating Out

I sometimes feel entitled to overeat when I'm eating out, and restaurants often try to facilitate. It has been shown that portion size and fat content at many

popular restaurants have increased in recent years. Thus, it is possible to get a mind boggling amount of fat and calories in a restaurant meal. Cuisines that are very healthy in their original countries (Chinese, Italian, Greek, etc.) often gain loads of fat when they morph into their American restaurant form. It's possible to overdose on calories even before the main course. For example, researchers at the Center for Science in the Public Interest recently measured the fat content in appetizers at several popular chain restaurants such as Chili's, Bennigan's, and Ruby Tuesday. Examples: buffalo wings - 48 grams of fat; stuffed potato skins - 79 grams of fat; fried mozzarella sticks - 51 grams of fat. For general comparison, many nutritionists recommend a total daily fat intake of about 60 grams of fat a day or less. Outback Steakhouse deserves special mention for two of their appetizers/side orders:

the Bloomin' Onion (which is deep fried) and the Cheese fries which have an incredible 116 and 151 grams of fat, respectively. If you also ate the dipping sauce that comes with the onion or the ranch dressing that comes with the fries, then you've got yourself 163 and 217 grams of fat, respectively. Who would have thought an onion could have 2,130 calories and an order of fries 3,010 calories?



9) Hunger

Hunger will not hurt you, but malnutrition or "overnutrition" are health risks. Hunger often varies with our state of mind. You may recall times when you were very hungry and then something came up, and you became preoccupied with it and forgot all about the hunger. Probably all of us have eaten when we have not been hungry. We have eaten to celebrate, or "to be nice" to a friend who has prepared something, or at a social gathering just because everyone else was snacking. It's also helpful to recognize when we are feeling hungry and when we're feeling something else. Most of us have eaten when we felt bored, frustrated, nervous, or upset. If we are feeling something other than hunger, then there is always something more appropriate to do than eat. Eating can make you feel good, but there are many other things that can also make you feel good (warm bath, music, yoga, exercising, laughing, praying, meditating, etc).

10) Enjoying Food

Food is a gift from God. It can give us pleasure in the preparing: the washing and cutting of vegetables, the measuring and stirring, the smells and the colors. Even in the cleanup, there can be satisfaction. To truly

enjoy food, you must take time and pay attention. One way psychologist Jon Kabat-Zinn teaches people to be more aware is to have people eat raisins one at a time, slowly and with eyes closed, focusing on the taste and texture. Many people are surprised to find that they have never truly tasted a raisin before. We often miss the enjoyment of food simply because we are not paying attention and are too much in a hurry. When we eat slowly, it allows time for the satiety or fullness signal to get to the brain. There is an old saying that goes something like this: It is better to eat a stone sitting down than bread standing up. Dr. Dean Ornish, who has developed an effective lifestyle program for the treatment of heart disease, points out that the ritual of saying a blessing before eating is an opportunity for us to "shift gears." The blessing can remind us to slow down and pay attention, and thereby be able to fully enjoy our food. This sounds so simple that I'm amazed at how difficult it is for me to put this attitude into daily practice.

11) Counting

How many calories should I eat? How many fat grams? How fast should I lose weight? How much should I weigh? I don't know the answer to those questions. I also believe those are the wrong questions to ask. Counting calories or fat grams can be done accurately in a research lab, but you and I can't. Even dietitians can't. In a recent study, dietitians tried to estimate the calorie content of plates of food, and their estimates were found to be very inaccurate. If you eat all your food from boxes, then perhaps you could read the FDA required label on the boxes and add up the calories and fat grams and be somewhat accurate. The main problem with this is that the "serving size" is smaller than what is usually eaten. And of course your diet would be quite nutritionally deficient and boring. Eating out of boxes is not a solution. We have to accept the fact that we simply can't know precisely how many calories and how many fat grams we are eating. The concept of calories and fat grams is very valuable to understand, but it is not for the individual to try and calculate this as a daily task. It is too much work, no fun, and not accurate.

The question of how fast to lose weight directs attention to the wrong place. A feeling of urgency to lose weight quickly often leads to diets that are unhealthy and almost insures that any weight lost will be regained. Healthwise, it is much better to lose a small amount and keep it off, than to lose a lot and then regain it. In general, slow and steady is safer and surer.

As for how much you should weigh, if you are exercising and eating a healthy diet, then throw the scales out the window. Lack of scales in your home is not a risk factor for any known disease. Stop counting calories, fat grams, and pounds. Start counting how many minutes of exercise you are doing each day.

C. Other Measures

1) Drugs for Weight Loss

The appetite suppressant medications offer a lot less than many people imagine. The cost of the drugs, the hassle of taking them, and the potential risks have to be considered. A report in December 1996 on weight loss drugs by the National Task Force on the Prevention and Treatment of Obesity found that: a) with all the medications, the maximum weight loss occurs in the first few months and tends to plateau at approximately six months; b) partial weight gain often occurs despite continued therapy; c) if the drugs are stopped, weight is regained; d) most of the studies using these drugs have been for short periods of time, i.e. less than twelve months; e) none of the drugs have been shown to be more effective than another; f) for all the available drugs, the amount of weight lost is small. In a study using Redux, patients taking this drug for one year along with a reduced calorie diet had an average weight loss of 5.9 pounds. In the longest study of the popular combination "fen/phen" there was only an average of 11 pound weight loss greater than the control group at three and a half years of follow up. That is, patients who took two drugs (with potentially serious side effects) for over three and a half years had only an 11 pound average weight loss greater than patients taking placebo (sugar pills). These modest amounts of weight loss are not what most people have in mind. However, even a weight loss of only 5 to 10 percent of initial body weight (if sustained) can have important health benefits. It can, for example, lower the risk for the development of diabetes and heart disease. Recent reports (August 1997) have raised concern that the appetite suppressant drugs may have more risks than was previously realized. I think we all look forward to the day (almost certainly years from now) when we will have more effective and safer drugs available.

2) Surgery

Liposuction is not generally considered a weight loss treatment, but occasionally I do get asked about this. It is effective at removing local deposits of fat, but like all surgery it carries some risk and is expensive. Stomach surgery for obesity is more effective than drugs but can have some long term side effects. Surgery is not always a permanent solution. I have some patients who have had stomach surgery done a second time because they eventually gained weight after the first surgery. Stomach surgery is an option for some patients who are very seriously overweight and have medical problems like diabetes or hypertension.

3) *Vitamins and other Nutritional Supplements*

I think it is reasonable to take a multiple vitamin tablet each day. It may be beneficial to take a small amount of additional vitamin C and vitamin E. There are perhaps a few other supplements that have enough suggestive positive evidence and probably little risk that one might consider taking them. What about the hundreds of compounds that can be bought in stores that claim to have health benefits? The problem is we really don't know enough. We don't know how much to take or in what combination. We don't even know if they are safe.

Beta carotene provides a good example, because studies have shown that diets high in beta carotene are associated with lower rates of cancer. Yet in two recent studies of beta carotene supplements in cigarette smokers, the group taking the beta carotene supplements were found to have a higher rate of lung cancer compared to the group taking placebo. Foods which are rich in beta carotene contain multiple other carotenoid compounds. Beta carotene is simply one of many. It may be that it is the complex combination of carotenoids found in carrots and other foods that is beneficial, and to try and take just a single carotenoid is not helpful. Maybe we should take beta carotene in it's original package (like a sweet potato), not a pill. At the present time, nothing seems able to take the place of nutritious foods.

4) *Smoking*

Yes, you need to stop. Yes, it is very hard. Yes, you can succeed. Yes, some people stop smoking and do gain weight. But it is possible to stop smoking and not gain weight (and even lose) if you make other lifestyle changes. And what a wonderful smoke free world it will be! Remember you've succeeded at other hard things in your life. Remember you're worth the effort.

5) *Skepticism*

A certain amount of skepticism can be healthy. The Latin phrase "caveat emptor" (let the buyer beware) reminds us of this. Advertising can educate and even entertain, but its chief function is to sell. A few examples: a) Fresh and natural are popular words in advertising for processed foods (as in "fresh taste" or "natural flavor") and are intended to give us a warm fuzzy feeling but usually empty calories. b) If you want to eat more whole grain, you'll have to be very alert and read the fine print. Regular Wheaties is whole grain but Honey Frosted Wheaties is mostly refined grain. Phrases like "unbleached wheat flour," and "enriched wheat flour" are confusing. The starting point for all flour (oat flour, rye flour, wheat flour, etc.) is the whole grain. When whole grain flour is milled into refined flour, the bran and the germ, which contain much of the nutrition, are lost. So if the list of ingredients does not list "whole wheat" first or if it uses some other phrase, then you're not getting whole wheat (or

whole wheat flour). There's nothing wrong with white flour, and most of us eat plenty; the idea is that we are not eating enough whole grain. Shifting the balance so we eat more whole grain is not necessarily the goal of the advertisements. c) When the Federal government passed the nutrition labeling law in 1990, fresh meat was exempted--nutritional labeling on the package was made voluntary. You likely won't be able to tell how much fat is in that package of ground beef, but it will probably be a lot. At my local grocery store there's often a bright red sticker affixed to the package identifying it as "diet lean" ground beef, but who knows what that means? Maybe it just means the grocery store wants to sell ground beef. d) Many people believe 2% milk is "low fat" because it's been labeled as such. 2% milk is reduced in fat as compared to whole milk, but since more than 30% of the calories in 2% milk come from the fat, it is not low fat. e) There are a vast number of products being sold that claim to increase your metabolism, burn fat, and melt pounds away. These will reduce your bank account, not your weight. f) If an advertisement for an exercise machine claims you can get in shape in 15 minutes a day, and the announcer promises that "you won't even have to sweat," place it in the category of the Gensu knives that cut through anything or the amazing do-it-all vegematic. And how in the world did we come to believe that sweating was so bad? Maybe we've seen too many deodorant commercials.

6) *TV*

The amount of time spent watching TV seems to correlate with body weight, especially in children. Most likely this reflects a sedentary lifestyle, but maybe it's more than just that alone. Advertisements for food are common on TV. They are spectacularly well done, and we are affected by them. Perhaps at this very moment, there is a roomful of very clever, very skilled, and very highly paid advertising executives on Madison Avenue brainstorming about a future food commercial. Their goal is to find the most successful way of manipulating us, of controlling our behavior, of making us feel we really do need a deep dish sausage and pepperoni pizza right now. This is not bad. It's just business. Of course, we have no obligation to allow these slick (or stylishly unslick) images into our brain. The flesh is weak, as the saying goes, so avoiding temptation (or perhaps more accurately, manipulation) is a very viable strategy.

TV is also home of the infomercial. I recently saw one for a popular diet. It was really well done and looked more like a public service show than a long commercial. (That is, until toward the end when you were told that if you acted right now, you would receive a big discount off the regular price.) The "experts," through the selective use of facts, made their diet seem very reasonable and wholesome. It reminded

me of get rich quick schemes because it sounded "too good to be true." The doctors explained how they discovered previously unknown truths about weight loss and dieting that make weight loss easy. The testimonials of people who used the diet with success were very impressive and persuasive. Of course, the liquid protein diet of the 1970's also received glowing testimonials from users, but people died from using that diet. Testimonials do have their limitations. Weight can be lost with either diets that are healthy or unhealthy. Our incomplete knowledge of nutrition, the complexity of what we do know, and the effectiveness of modern TV marketing techniques can combine to make almost any diet look great. Maybe I should write the "Oreo Cookie Ice Cream Power Diet." It wouldn't be a real healthy diet, but it would make a really great infomercial!

There is another aspect of TV, the local news, that bears mentioning. Studies have suggested that the local news shows with their emphasis on violence, crime, and disasters may promote cynicism and fear among viewers. Feeling fearful is very fatiguing. In some ways, the local news is like junk food for the mind. It fills us up with things that may not be nourishing. Could a steady diet of these negative images be a health risk?

7) Comparing

I sometimes hear a very understandable complaint. A spouse or friend, so I am told, eats a high fat, high calorie diet, and does absolutely no exercise, and yet has no problem with weight at all. I believe these stories to be true. It is also true that some people inherit great wealth and have long lives while others are born into dire poverty and die young. People do come in different sizes. Some are thin without trying to be and some are large despite trying not to be. Comparing wastes energy and diverts our attention from where it can do the most good. The more we can stop comparing, the more time and energy we will have for our own lives. And in order to change your lifestyle, which is very challenging, you will need all your resources.

IV. Summing Up

Our society is very focused on weight. We seem to overvalue stereotyped images of thinness that just don't fit with the real diversity of humanity. It also doesn't help that some people mistakenly see weight as almost a moral issue rather than a health issue. Losing weight does not make us more virtuous, and gaining weight does not make us bad. One can be

very overweight and have a long life filled with love and happiness, or be thin and rigorously health conscious yet lack joy, compassion, and longevity.

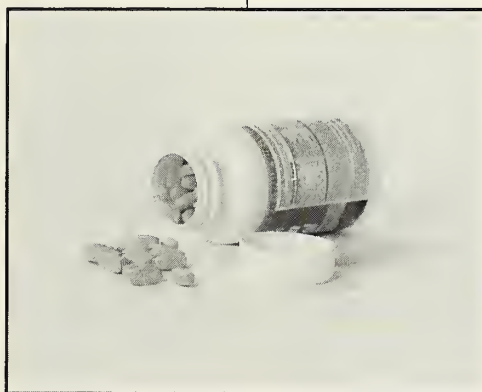
It's human nature to want to divide things into strict "good" and "bad" classifications. This doesn't work with food (and perhaps with much else in life). When we start thinking of certain foods as "good" and others as "bad," this oversimplification often leads to feelings of self righteousness and guilt about food. It can lead us to judge what we eat and what others eat. We may feel superior or inferior to others based on the intake of food. But it's not what we put into our mouths that determine what kind of person we are, and it's not ours to judge. Some foods are more nutritious than others, but a healthy diet can incorporate a wide variety of food. There really is no such thing as a perfect diet or an ideal weight. The recommendations I have made are simply choices that may reduce the risk for disease and assist with weight loss or weight maintenance. They are somewhat arbitrary, and so must be individualized to fit one's own life.

The National Task Force on the Prevention and Treatment of Obesity notes that Americans spend more than \$30 billion annually on diet foods, products and programs. However, attempts at weight loss often fail. The reasons for this are complex and our knowledge is incomplete. I am convinced that for most over-

weight people, giving up the goal of weight loss would be very healthy. A larger yet more realistic goal (and one we can all have) is to try and take better care of ourselves physically, emotionally, and spiritually. Exercising and eating healthier can be part of this. It helps to remember that better has nothing to do with perfection. Perfection is a different species than *Homo sapiens*. Learning to take better care of ourselves is an ongoing process for us all. This process can be furthered by patience and self respect. Letting go of self-critical, judgmental, and negative attitudes is a good choice, no matter what we weigh.

V. More Information

A good source for nutrition information is the Nutrition Action Health Letter which is published by the Center for Science in the Public Interest (1 year subscription is \$24, their address is P.O. Box 96611, Washington, DC 20090-6611). There are many excellent cookbooks with delicious and low fat recipes. Examples: 1) Moosewood Restaurant Low Fat Favorites 2) Everyday Cooking with Dr. Dean Ornish 3) Vegetarian Times Complete Cookbook.





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Can Aspirin be Replaced in the Treatment of Coronary Artery Disease?

Since the publication of the landmark ISIS-2 results in 1988, aspirin has attained status as standard-of-care in coronary artery disease.¹ Not surprisingly, its effects and action have been the focus of considerable research investment by the pharmaceutical industry with goals of enhancement of efficacy, extension of its utility and possibly, its therapeutic replacement. As cardiovascular disease accounts for an enormous portion of morbidity and mortality in the world population, competition to bring new agents to market has been understandably fierce.

The current focus of therapy has to do with platelet interaction as an acute problem, as well as a long-term influence on recurrence of disease. The interaction between platelets is dependent on the platelet glycoprotein IIb/IIIa receptor. Aside from the obvious involvement with platelet aggregation by fibrinogen cross-linkage, the aggregation of platelets results in the release of vasoactive, mitogenic and growth factors which are implicated in long-term restenosis of sites of intervention by angioplasty or stenting. The currently available intravenous IIb/IIIa inhibitor abciximab (ReoPro, Centecor, Eli Lilly, Indianapolis, In. USA) has been demonstrated to significantly effect short and long-term benefit in the EPIC, EPILOG, and Capture Trials. By contrast, aspirin has been shown not to significantly influence restenosis.² With the advent of ReoPro, IIb/IIIa inhibition has now assumed the long-term preventive therapeutic role previously only ascribed to aspirin.

As ReoPro is an intravenous agent requiring a twelve hour infusion time, the convenience of oral administration is the preferred point of development for most pharmaceutical companies, many of whom have new agents rapidly headed for phase III testing

(Figure 1). Currently at our institution, studies involving three oral agents and two intravenous agents are in progress: Integralin/epitfibatide, abciximab, RPR1099891, DMP 754 and Xemilofiban. This review will focus on these new agents which specifically block the glycoprotein IIb/IIIa receptor.^{3,4}

Eptifibatide (Cor Therapeutics, South San Francisco, Ca. USA) is a cyclic heptapeptide administered by intravenous infusion. It has been previously studied in several trials including IMPACT and PURSUIT. It has been shown to be of benefit, however, fraught with bleeding complications. These are thought to be largely due to high heparin dosing and currently PRIDE is in progress to examine whether a lower-dose heparin regimen with Eptifibatide may still offer antiplatelet benefit with decreased bleeding problems.

Abciximab, as described above, is the only FDA-approved IIb/IIIa agent on the market. While it is only indicated for use with angioplasty, its use in intracoronary stenting is being evaluated now in the EPILOG-stent study. Results of its benefit in this setting are not yet available.

RPR 109891 (Rhone-Poulenc & Rorer, Collegeville, Pa. USA) is one of the newest oral agents and has thus far been examined only in Phase I and II trials. At our institution, a Phase II study is currently underway to examine the incidence of bleeding complications and the effect on platelet aggregation over an 8 week period to establish safety and tolerability at varying dosages. The study population is to be drawn from outpatients with a recent acute coronary syndrome (unstable angina, non-Q wave infarction or Q-Wave infarction). Additionally, another study ORATOR is set to begin soon to examine the efficacy of RPR 109891 in comparison to Ticlopidine after intracoronary stenting. This national study will be conducted at UAMS and the McClellan VA as well.

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Xemilofiban (G. D.Searle, Chicago, IL. USA) is another of the oral agents under investigation. It is taken as a prodrug which is converted to its active through hepatic metabolism. Significantly, its action is dose-dependent with a longevity of up to 14 days. The ORBIT Trial is ongoing to evaluate the benefits and limitations of its chronic use.

DMP 754 (DuPont Merck, Wilmington, DE., USA) is another oral IIb/IIIa inhibitor under investigation. A phase II study is in progress to evaluate its safety and effect on platelet aggregation in patients with acute coronary ischemic syndrome. This study is significant in that DMP 754 is being compared in randomized, blinded fashion to aspirin.

While the cost effectiveness of aspirin will be difficult to beat, the hope is that the clinical utility and efficacy of IIb/IIIa inhibitor will extend beyond that of aspirin, perhaps making it obsolete in some patient groups. This potential for radical change in clinical practice is echoed in the comparison of heparin to MK 383 (Merck, Inc., Westpoint, N.Y., USA) in the ongoing PRISM trial comparing their use in unstable angina. Similarly the adjunctive benefit of RO 44-9883 (Genentech Roche South San Francisco, CA. USA) with thrombolytics is being evaluated in PARAGON.

The possible replacement of conventional

antiplatelet therapies is on the horizon and represents one of the largest waves of researching in cardiology today. As aspirin has extended beyond the heart into the treatment of peripheral vascular disease, it is to be expected that with the profusion of companies currently developing new agents, indications for stroke, vascular disease and possibly coagulation disorders may soon follow.

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Research	Preclinical	IND	Phase I	Phase II	Phase III	Market
Ro 44-9883 (<i>Genentech/Roche</i>)						
Xemilofiban (<i>Searle/Monsanto</i>)						
DMP 754 (<i>Dupont Merck</i>)						
RPR 109891 (<i>Rhône-Paulenc-Rorer</i>)						
BIBU-104 (<i>Boehringer Ingelheim</i>)						
(<i>SmithKline-Beecham</i>)						
(<i>Hoechst-Roussel/Cassella</i>)						
Glaxo						
Lilly/COR						
Fujisawa						
Sandoz						

Figure 1: The various stages of development of oral glycoprotein IIb/IIIa platelet receptor inhibitors.



State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Influenza Vaccine Update

The Advisory Committee on Immunization Practices (ACIP) recently published recommendations for the use of influenza vaccine for the 1997-98 influenza season.

Influenza vaccine is strongly recommended for any person aged ≥ 6 months who - because of age or underlying medical condition - is at increased risk for complications of influenza. Health-care workers and others (including household members) in close contact with persons in high-risk groups also should be vaccinated. In addition, influenza vaccine may be administered to any person who wishes to reduce the chance of becoming infected with influenza. The trivalent influenza vaccine prepared for the 1997-98 season will include A/Bayern/07/95-like (H1N1), A/Wuhan/359/95-like (H3N2), and B/Beijing/184/93-like hemagglutinin antigens. For the A/Bayern/07/95-like, A/Wuhan/359/95-like, and B/Beijing/184/93-like antigens, U.S. manufacturers will use the antigenically equivalent strains A/Johannesburg/82/96 (H1N1), A/Nanchang/933/95 (H3N2), and B/Harbin/07/94 because of their growth properties. Guidelines for the use of vaccine among certain patient populations follow; dosage recommendations vary according to age group (Table 1).

Although the current influenza vaccine can contain one or more of the antigens administered in previous years, annual vaccination with the current vaccine is necessary because immunity declines in the year following vaccination. Because the 1997-98 vaccine differs from the 1996-97 vaccine, supplies of 1996-97 vaccine should not be administered to provide protection for the 1997-98 influenza season.

Two doses administered at least 1 month apart may be required for satisfactory antibody responses among previously unvaccinated children aged < 9 years; however, studies of vaccines similar to those being used currently have indicated little or no improvement in antibody response when a second dose is administered to adults during the same season.

During recent decades, data on influenza vaccine immunogenicity and side effects have been obtained for intramuscularly administered vaccine.

Because recent influenza vaccines have not been adequately evaluated when administered by other routes, the intramuscular route is recommended. Adults and older children should be vaccinated in the deltoid muscle and infants and young children in the anterolateral aspect of the thigh.

The optimal time for organized vaccination campaigns for persons in high-risk groups is usually the period from October through mid-November. However, beginning each September (when vaccine for the upcoming influenza season becomes available) persons at high risk who are seen by health-care providers for routine care or as a result of hospitalization should be offered influenza vaccine. Opportunities to vaccinate persons at high risk for complications of influenza should not be missed.

The Arkansas Department of Health will offer influenza vaccinations at all local health units October 15 through November 15, 1997.

Those desiring more information may call the Arkansas Department of Health, Division of Communicable Disease/Immunizations at (501) 661-2169 during normal business hours.

Table 1:
Influenza vaccine* dosage, by age group - United States, 1997-1998 season

Age group	Product**	Dosage	No. of doses	Route****
6-35 mos	Split virus only	0.25 mL	1 or 2***	Intramuscular
3-8 yrs	Split virus only	0.25 mL	1 or 2***	Intramuscular
9-12 yrs	Split virus only	0.50 mL	1	Intramuscular
> 12 yrs	Whole or split virus	0.50 mL	1	Intramuscular

* Contains 15 ug each of A/Bavarn/07/95-like (H1N1), A/Wuhan/359/95-like (H3N2), and B/Beijing/184/93-like hemagglutinin antigens in each 0.5 mL. For the A/Bayern/07/95-like, A/Wuhan/359/95-like, and B/Beijing/184/93-like antigens, U.S. manufacturers will use the antigenically equivalent strains A/Johannesburg/82/96 (H1N1), A/Nanchang/933/95 (H3N2), and B/Harbin/07/94 because of their growth properties. Manufacturers include: Connaught Laboratories, Inc. (Fluzone® whole or split), Evans Medical Ltd. (An affiliate of Medeva Pharmaceuticals, Inc.) (Fluvirin™ purified surface antigen vaccine) and Wyeth-Ayers Laboratories (Flushield™ split). For further product information call Connaught, (800) 822-2463; Evans/Medeva, (800) 932-1950 or Wyeth-Ayerst, (800) 358-7443.

** Because of their decreased potential for causing febrile reactions, only split-virus vaccines should be used for children. They may be labeled as "split," "subvirion," or "purified-surface-antigen" vaccine. Immunogenicity and side effects of split- and whole-virus vaccines are similar among adults when vaccines are administered at the recommended dosage.

*** Two doses administered at least 1 month apart are recommended for children aged < 9 years who are receiving influenza vaccine for the first time.

**** For adults and children, the recommended site of vaccination is the deltoid muscle. The preferred site for infants and young children is the anterolateral aspect of thigh.

Reported Cases of Selected Diseases in Arkansas Profile for July 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases July 1997	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	16	89	130	241	91	153
Giardiasis	34	114	83	182	60	131
Shigellosis	19	126	56	176	75	176
Salmonellosis	52	189	220	455	139	338
Hepatitis A	16	152	299	500	297	663
Hepatitis B	6	36	56	93	38	83
Hepatitis C	0	0	4	7	NR	NR
HIB	0	0	0	0		1
Meningococcal Infections	0	23	27	35	26	39
Viral Meningitis	2	13	16	38	25	33
Ehrlichiosis	9	17	6	7	12	14
Lyme Disease	1	14	25	27	7	12
Rocky Mountain Spotted Fever	5	15	14	22	22	31
Tularemia	1	16	16	24	18	22
Measles	0	0	0	0	2	2
Mumps	0	1	1	1	4	6
Gonorrhea	454	2760	2890	5050	2934	5437
Syphilis	34	293	510	706	610	1017
Legionellosis	0	0	1	1	5	8
Pertussis	0	9	4	14	50	59
Tuberculosis	10	110	128	225	127	271

NR Not reportable

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893 during normal business hours.

The 1997 Arkansas Medical Society Membership Directories are now available. **All physician-members should soon receive one copy through the mail at no charge.** To order extra copies, or if you are not an AMS member and would like your own copy of the 1997 AMS Membership Directory, send a check or money order made payable to AMS in the amount of your purchase to: AMS, 1997 Membership Directory, P.O. Box 55088, Little Rock, AR 72215-5088. Be sure to include the name and address of who and where to mail your directory. The directories are \$50 each. With a purchase of 2 to 10, \$45 each; 11 or more, \$35 each.

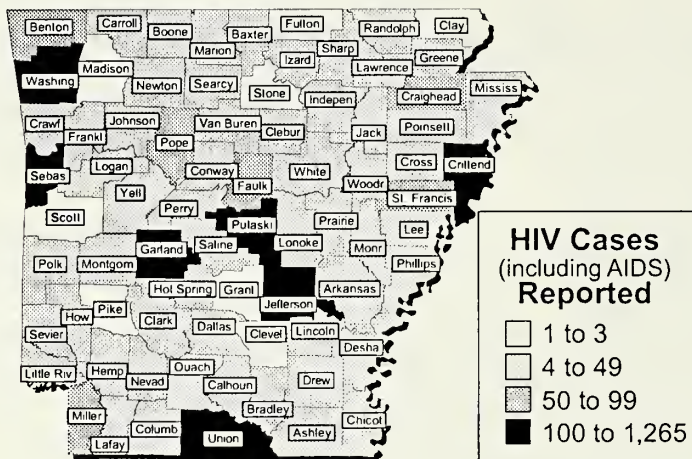
We Are Looking Forward to Your Visit!

The AMS now has a Web Site.
Come visit us soon at
<http://www.arkmed.org>

See you there.

HIV In Arkansas

Distribution Of Cases 1983 through August 12, 1997



Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-89	1990	1991	1992	1993	1994	1995	1996	1997	Total	%
SEX	Male	510	367	376	374	339	346	323	266	180	3,081	81
	Female	64	67	87	76	89	89	89	78	69	708	19
AGE	Under 5	4	8	13	6	3	7	2	1	6	50	1
	5-12	2	5	1	2	1	0	1	0	0	12	0
	13-19	15	14	18	25	11	21	11	21	14	150	4
	20-24	94	61	43	48	59	58	44	29	24	460	12
	25-29	144	105	100	99	106	80	73	60	35	802	21
	30-34	128	105	114	106	89	93	97	84	60	876	23
	35-39	91	70	86	63	75	69	80	70	41	645	17
	40-44	43	38	47	39	45	48	46	35	34	375	10
	45-49	29	12	19	25	16	27	22	18	22	190	5
	50-54	8	7	14	14	10	10	17	14	5	99	3
	55-59	7	6	3	12	6	6	6	6	5	57	2
	60-64	2	1	2	6	5	9	7	1	2	35	1
	65 and older	7	2	3	5	2	7	6	5	1	38	1
RACE	White	385	290	280	280	264	244	253	187	126	2,309	61
	Black	185	141	180	164	159	180	150	145	108	1,412	37
	Hispanic	2	0	3	4	1	7	3	6	4	30	1
	Other/Unknown	2	3	0	2	4	4	6	6	11	38	1
RISK	Male/Male Sex Injection Drug User (IDU)	327	230	242	246	231	211	172	135	66	1,860	49
	Male/Male Sex + IDU	79	68	89	71	62	71	55	29	20	544	14
	Heterosexual (Known Risk)	77	38	32	37	28	23	28	23	10	296	8
	Transfusion	52	55	65	65	96	98	65	65	38	599	16
	Perinatal	16	6	8	9	1	2	3	2	0	47	1
	Hemophiliac	4	8	13	8	4	7	3	1	6	54	1
	Undetermined	6	18	5	6	2	3	5	0	0	45	1
		13	11	9	8	4	20	81	89	109	344	9
	TOTAL	574	434	463	450	428	435	412	344	249	3,789	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

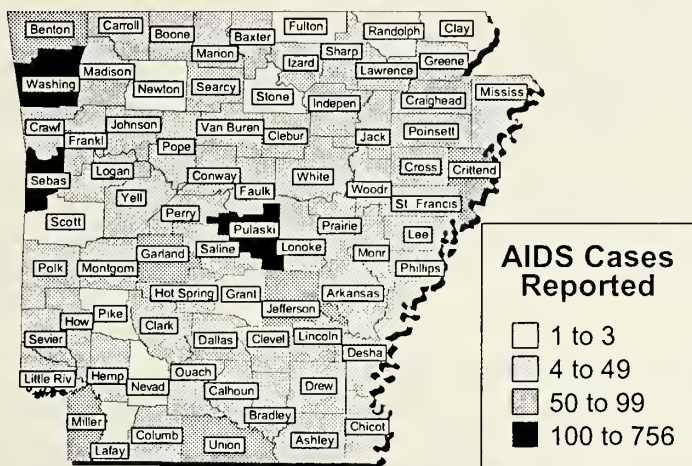
HIV Cases By County

County	1983-8/12/97	Sep 96-Aug 97
Arkansas	20	6
Ashley	19	*
Baxter	30	4
Benton	91	7
Boone	31	*
Bradley	15	*
Calhoun	8	*
Carroll	38	*
Chicot	19	*
Clark	19	8
Clay	*	*
Cleburne	15	*
Cleveland	*	0
Columbia	20	*
Conway	20	0
Craighead	71	9
Crawford	34	*
Crittenden	164	23
Cross	21	*
Dallas	8	0
Desha	17	*
Drew	12	*
Faulkner	62	*
Franklin	6	*
Fulton	*	*
Garland	141	12
Grant	*	0
Greene	22	*
Hempstead	23	4
Hot Spring	22	0
Howard	9	0
Independence	28	0
Izard	6	0
Jackson	10	4
Jefferson	162	11
Johnson	11	0
Lafayette	6	0
Lawrence	12	*
Lee	15	*
Lincoln	4	0
Little River	12	*
Logan	7	*
Lonoke	25	*
Madison	*	0
Marion	4	0
Miller	90	7
Mississippi	46	5
Monroe	14	*
Montgomery	6	0
Nevada	4	*
Newton	5	*
Ouachita	33	*
Perry	5	0
Phillips	40	7
Pike	*	0
Poinsett	15	0
Polk	12	*
Pope	55	*
Prairie	6	0
Pulaski	1,265	96
Randolph	5	*
St. Francis	78	11
Saline	26	5
Scott	*	0
Searcy	5	*
Sebastian	211	11
Sevier	10	*
Sharp	10	*
Stone	*	*
Union	117	6
Van Buren	5	0
Washington	284	29
White	36	*
Woodruff	4	0
Yell	12	*
Prisons	106	12

* Case numbers of 1-3 are not reported.

AIDS In Arkansas

Distribution Of Cases 1983 through August 12, 1997



Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-89	1990	1991	1992	1993	1994	1995	1996	1997	Total	%
SEX	Male	231	162	171	243	325	253	238	212	116	1,951	86
	Female	21	19	25	34	63	42	35	54	33	326	14
AGE	Under 5	2	6	6	3	2	1	2	0	6	28	1
	5-12	1	1	1	0	1	0	2	0	0	6	0
	13-19	0	4	3	2	4	3	1	3	1	21	1
	20-24	23	10	14	14	31	22	11	14	8	147	6
	25-29	58	41	42	65	78	45	46	46	19	440	19
	30-34	62	44	42	70	96	80	74	75	39	582	26
	35-39	53	32	37	55	77	52	49	54	34	443	20
	40-44	21	18	33	27	48	40	35	37	20	279	12
	45-49	12	14	6	22	26	22	17	21	13	153	7
	50-54	4	5	5	7	10	12	15	4	3	65	3
	55-59	8	1	4	8	8	5	6	7	2	49	2
RACE	60-64	3	1	1	2	5	10	5	1	1	29	1
	65 and older	5	4	2	2	3	3	9	4	3	35	2
	White	192	133	132	200	264	189	174	144	92	1,520	67
	Black	57	46	63	73	121	103	95	116	52	726	32
RISK	Hispanic	1	0	1	3	3	2	3	4	3	20	1
	Other/Unknown	2	2	0	1	1	1	0	2	2	11	0
	Male/Male Sex Injection Drug User (IDU)	142	112	114	175	229	162	137	120	58	1,249	55
	Male/Male Sex + IDU	27	17	29	41	68	47	47	27	19	322	14
RISK	Heterosexual (Known Risk)	49	19	21	27	29	25	24	23	5	222	10
	Transfusion	15	10	11	20	52	41	35	53	27	264	12
	Perinatal	13	7	8	5	1	4	3	3	0	44	2
	Hemophiliac	2	6	6	3	3	1	3	0	6	30	1
	Undetermined	2	5	5	4	5	6	7	1	0	35	2
	Undetermined	2	5	2	2	2	9	16	39	34	111	5
	TOTAL	252	181	196	277	389	295	272	266	149	2,277	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

AIDS Cases By County

County	1983-8/12/97	Sep 96-Aug 97	Case Rate Per 100,000
Arkansas	9	0	0.0
Ashley	15	*	4.1
Baxter	23	*	3.2
Benton	73	8	8.2
Boone	24	*	10.6
Bradley	11	*	8.5
Calhoun	6	0	0.0
Carroll	23	0	0.0
Chicot	11	*	12.7
Clark	10	*	9.3
Clay	*	*	5.5
Cleburne	10	*	15.5
Cleveland	4	0	0.0
Columbia	15	*	3.9
Conway	14	0	0.0
Craighead	49	6	8.7
Crawford	26	0	0.0
Crittenden	83	11	22.0
Cross	11	*	10.4
Dallas	5	0	0.0
Desha	9	*	6.0
Drew	7	*	5.8
Faulkner	49	5	8.3
Franklin	4	0	0.0
Fulton	*	*	10.0
Garland	86	7	9.5
Grant	*	0	0.0
Greene	12	*	3.1
Hempstead	12	*	4.6
Hot Spring	16	*	3.8
Howard	6	0	0.0
Independence	15	0	0.0
Izard	6	*	8.8
Jackson	4	0	0.0
Jefferson	90	10	11.7
Johnson	7	0	0.0
Lafayette	*	0	0.0
Lawrence	11	*	5.7
Lee	9	*	15.3
Lincoln	5	*	7.3
Little River	5	0	0.0
Logan	8	*	14.6
Lonoke	22	0	0.0
Madison	4	0	0.0
Marion	4	0	0.0
Miller	50	7	18.2
Mississippi	17	*	1.7
Monroe	6	*	8.8
Montgomery	5	0	0.0
Nevada	*	0	0.0
Newton	*	0	0.0
Ouachita	21	*	3.3
Perry	4	0	0.0
Phillips	21	*	10.4
Pike	*	0	0.0
Poinsett	8	0	0.0
Polk	9	*	5.8
Pope	27	*	4.4
Prairie	6	*	10.5
Pulaski	756	85	24.3
Randolph	*	*	6.0
St. Francis	35	6	21.1
Saline	19	4	6.2
Scott	*	0	0.0
Searcy	5	*	25.5
Sebastian	129	9	9.0
Sevier	8	*	7.3
Sharp	8	*	21.3
Stone	*	0	0.0
Union	69	7	15.0
Van Buren	4	0	0.0
Washington	170	15	13.2
White	20	*	3.7
Woodruff	4	0	0.0
Yell	9	*	11.3
Prisons	32	*	N/A

* Case numbers of 1-3 are not reported.

Resolutions

Joseph Anthony Buchman, M.D.

WHEREAS, the membership of the Pulaski County Medical Society is truly saddened to note the recent death of an esteemed colleague, Joseph Anthony Buchman, M.D.; and
WHEREAS, he was an active and faithful member of this organization of over forty-six years; and
WHEREAS, Dr. Buchman served with distinction in the Army Medical Corps during World War II, rising to the rank of Lieutenant Colonel, and receiving numerous awards and honors; and
WHEREAS, the memory of Dr. Buchman as a skillful and compassionate physician will live on as a constant source of inspiration for all those who knew him;
BE IT THEREFORE RESOLVED:
THAT, this resolution be adopted and filed in the archives of this Society; and
THAT, a copy of this resolution be mailed to Dr. Buchman's family as a token of our sincere sorrow; and
THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

John Roger Clark, M.D.

WHEREAS, the membership of the Pulaski County Medical Society note with sorrow the untimely death of a respected colleague, John Roger Clark, M.D.; and
WHEREAS, Dr. Clark was a loyal member of this Society since 1991, always giving generously of his time and talent towards its betterment; and
WHEREAS, Dr. Clark's abiding concern for the youth of our society was clearly manifested by the many hours he spent volunteering for such organizations as Arkansas Special Olympics, P.A.R.K., and numerous local high schools; and
WHEREAS, Dr. Clark's sympathetic spirit and surgical skills personified the highest standards of medicine and earned for him the love and respect of his patients and peers alike;
BE IT THEREFORE RESOLVED:
THAT, this resolution be adopted and filed in the archives of this Society; and
THAT, a copy of this resolution be mailed to Dr. Clark's family as an expression of our heart-felt sorrow; and
THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

Paul Williams Hoover, M.D.

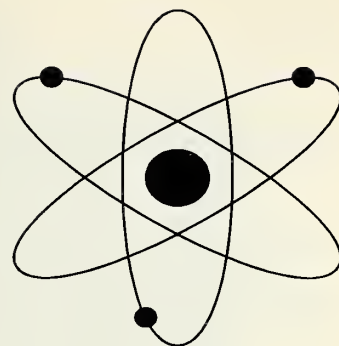
WHEREAS, the Pulaski County Medical Society observes with sadness the recent death of an esteemed member, Paul Williams Hoover, M.D.; and
WHEREAS, his commitment to the profession of medicine was demonstrated by long-time membership in his Society, in the Southern Medical Association, in the AMA, and in many other organizations; and
WHEREAS, his commitment to his patients, demonstrated by decades of capable and compassionate service as a General Surgeon, will be long remembered;
BE IT THEREFORE RESOLVED:
THAT, this resolution be adopted and placed in the archives of this Society; and
THAT, a copy of this resolution be sent to Dr. Hoover's family as a token of our heart-felt sorrow; and
THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

All Resolutions adopted:
August 20, 1997
Board of Directors

By Order of the Memorials Committee
Fred O. Henker, III, M.D., Chairman
Bruce E. Schratz, M.D.
James W. Headstream, M.D.

Radiological Case of the Month

Steven R. Nokes, M.D., Editor



Authors

Scott B. Harter, M.D.

Steven Kulik, M.D.

History:

A 42-year-old male presented with chronic posterolateral ankle pain. An MR scan (figure 1) was performed.



Figure 1

Figure 1: Axial MR image of the ankle (TR 500 TE11). The site of pain is marked with an oil capsule.

Split Peroneus Brevis Tendon

Diagnosis:

Split peroneus brevis tendon.

Findings:

There should be only two tendons (black round to oval structures) behind the fibular head. On these images, three tendons are present (arrows) indicating a longitudinal tear (split) of the peroneus brevis tendon. The peroneus longus tendon (open arrow) is interposed between the tendon split. (See figure 2)

Discussion:

Ankle sprains are very common, usually associated with collateral ligament injuries. Pain usually resolves with conservative management in a week or two. Some patients who suffer ankle trauma injure the peroneal tendons. This injury is often not recognized for several months while the patient suffers with chronic lateral ankle pain. The clinical differential diagnosis for chronic posterolateral ankle pain encompasses lateral collateral ligament tear, osteochondritis dissecans, peroneal tendon pathology, subtalar instability, subtalar arthritis, acquired pes planus and sural nerve neuroma. Peroneal tendon pathology includes tenosynovitis (inflammation of the tendon sheath), tendonitis (inflammation of the tendon) and tear (partial is more common than complete).

Peroneal tendon tears are most often associated with a forced dorsiflexion injury. The majority occur in young, athletic patients, although they can be seen in elderly patients without a history of trauma.

Peroneus brevis tears are more common than injuries to the peroneus longus. Longitudinal splits occur more frequently than transverse tears. The brevis tendon is sandwiched between the peroneus longus tendon and the distal fibula. With violent contraction of the peroneal muscles or repetitive trauma, the brevis tendon may actually split in two.

CT is the preferred diagnostic test to evaluate the peroneal tendon in cases of calcaneal fracture, because it demonstrates small osseous fragments. In chronic pain MR is preferred because it is sensitive to other causes of lateral ankle pain as well as possible peroneal tendon abnormalities. Tenosynography has fallen into disuse.

Treatment is surgical debridement if possible. If the tendon is shredded, the brevis tendon can be excised distally and attached proximally to the longus tendon.

References:

1. Khoury NJ, et al. Peroneus longus and brevis tendon tears. MR imaging evaluation. *Radiology* 1996; 200:933-841.
2. Deutsch AL, Mink JH, Kerr R. *MRI of the foot and ankle*. Raven Press. New York 1992. pp 158-164.

Authors:

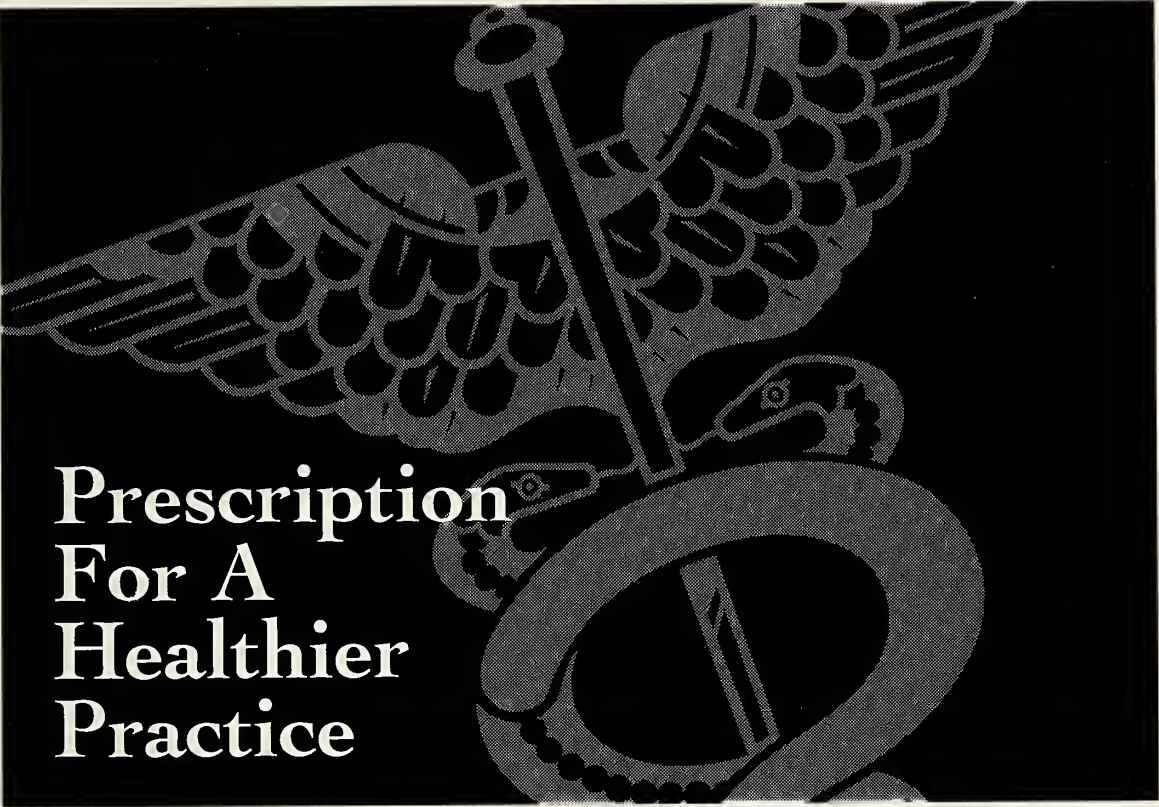
Editor: Steven R. Nokes, M.D., Radiology Consultants in Little Rock.

Author: Scott B. Harter, M.D., Radiology Consultants in Little Rock.

Author: Steven Kulik, M.D., Orthopedic Specialists in Little Rock.



Figure 2



Prescription For A Healthier Practice

You've spent many years building your practice. Now spend one day learning how you can manage your practice more efficiently. Medical Group Management Association and Private Banking First Commercial are offering a half-day seminar November 19 to help increase your financial management skills and your business profits.

This hands-on, interactive seminar will assist you in strategic planning, physician compensation, financial and operational review, hospital/health plan affiliation and managed care preparation. Topics include:

- Overview of U.S. healthcare
- Mergers and affiliations
- Managed Care

The seminar is led by Robert C. Bohlmann. Mr. Bohlmann is a senior consultant with the

Medical Group Management Association.

For 25 years he has helped more than 400 clients, including small single-specialty to large medical group practices and hospitals.

He offers advice in conflict resolution, governance structuring, group formation feasibility & implementation and group-to-group mergers.

Mr. Bohlmann has also contributed to *MGM Update's* "Ear to the Ground" column.

The seminar will be in the Money Tree Room I on the Fourth Floor of the First Commercial Bank Building at Capitol & Broadway in Little Rock. Cost is \$45, including materials and breakfast. Please bring a calculator. For registration or more information, please call 371-6613.

First
Commercial
Bank

New Members

ARKADELPHIA

Kennedy, Edmund, Otorhinolaryngology. Medical Education, University of Manitoba, Faculty of Medicine, Winnipeg, Canada, 1976. Internship, University of Manitoba, Faculty of Medicine, Winnipeg, Canada, 1977. Residency, University of Manitoba, Faculty of Medicine, Winnipeg, Canada, 1981.

FAYETTEVILLE

Beck, J. Thaddeus, Internal Medicine/Hematology-Oncology. Medical Education, UAMS, 1985. Internship/Residency, UAMS, 1986/1988. Fellowship, Duke University, 1991. Board certified.

Chapman, Angela C., Psychiatry. Medical Education, UAMS, 1993. Internship/Residency, UAMS, 1994/1997.

FORT SMITH

Chapman, Robert Kent, Pathology. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1986. Residency, University of Missouri Hospital and Clinics, Columbia, Missouri, 1991. Board certified.

Stites, Kirk D., Cardiology. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1990. Internship/Residency, University of Oklahoma Health Sciences Center, 1991/1993. Fellowship, Scott & White Hospital and Clinics, 1997. Board certified.

HOPE

Downs, Michael, Family Practice. Medical Education, UAMS, 1982. Internship/Residency, Tulsa Medical College, University of Oklahoma, 1985. Board certified.

HOT SPRINGS

Garrett, (Willard) Michael, Emergency/Occupational. Medical Education, University of Missouri School of Medicine, Kansas City, 1976. Internship, St. Luke's Hospital, Kansas City, 1977. Board certified.

LITTLE ROCK

Mullins, Michael S., Family Practice. Medical Education, UAMS, 1994. Internship/Residency, UAMS, AHEC-SW, 1995/1997. Board pending.

Chandler, Kay H., Obstetrics/Gynecology. Medical Education, University of Texas Southwestern Medical School, Dallas, 1993. Internship/Residency, UAMS, 1997.

Dean, David Paul, Cardiovascular & Thoracic Surgery. Medical Education, UAMS, 1990. Internship, University of Kansas School of Medicine, Wichita, 1991. Residencies, University of Kansas School of Medicine and Oregon Health Sciences University, 1995/1997. Board certified.

Hiatt, Roger Lew, Jr., Child & Adolescent Psy-

chiatry. Medical Education, University of Tennessee Center for Health Sciences, Memphis, 1992. Internship/Residency, UAMS, 1993/1997.

McGhee, Judith Ellen, Preventive/Occupational Medicine. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1980. Internship, OUHSC, Department of Family Practice, 1981. Residency, School of Aerospace Medicine, Brooks Air Force Base, Texas, 1986. Board certified.

Pulla, Ganesh N., Internal Medicine/Nephrology. Medical Education, Gandhi Medical College, Osmania University, Hyderabad, India. Internship, Medical College of Virginia, 1993. Residency, Edgewater medical Center, 1995. Board certified.

Smoller, Bruce Robert, Pathology. Medical Education, University of Cincinnati College of Medicine, Ohio, 1983. Internship/Residency, Beth Israel Hospital, Boston, Massachusetts, 1984/1987. Board certified.

Sweeney, Thomas Patrick, Radiology. Medical Education, University of Missouri School of Medicine, Columbia, 1993. Residency, University of Kansas Medical Center, Kansas City, 1997. Board certified.

Yetman, Anji Theresa, Pediatric Cardiology. Medical Education, McMaster Medical School, Hamilton, Ontario, Canada, 1991. Internship/Residency, CHWO, London, Ontario, Canada, 1992/1995. Board certified.

NORTH LITTLE ROCK

Clinton, Kimberly Suzanne, Pediatrics. Medical Education, University of Texas Health Science Center, Houston, 1994. Internship/Residency, UAMS, Arkansas Children's Hospital, 1995/1997.

PARAGOULD

Burchfield, Samuel Scott, Family Practice. Medical Education, University of Texas Health Science Center, San Antonio, 1994. Internship/Residency, Clarkson Family Medical, Omaha, Nebraska, 1995/1997.

Bulkley, William J., Otolaryngology/Head & Neck Surgery. Medical Education, University of Texas Health Science Center, 1991. Internship/Residency, Chicago, Illinois, 1992/1996. Fellowship, St. Louis, Missouri, 1997. Board certified.

SEARCY

Dicus, George Scott, Internal Medicine. Medical Education, UAMS, 1994. Internship/Residency, UAMS, 1995/1997. Board pending.

Mitchell, Rhonda K., Family Practice. Medical Education, UAMS, 1993. Internship/Residency, AHEC-Pine Bluff, 1994/1996. Board certified.

SPRINGDALE

Green, Michael Dale, Cardiology. Medical Edu-

cation, UAMS, 1989. Internship/Residency, UAMS, 1990/1992. Board certified.

Ritter, David William, General Surgery. Medical Education, Washington University School of Medicine, St. Louis, Missouri, 1992. Internship/Residency, Baylor University Medical Center, 1993/1997.

STEPHENS

Kelly, Patricia Ann, Family Practice. Medical Education, St. George's University School of Medicine, Grenada, West Indies, 1992. Internship/Residency, AHEC-El Dorado, 1995/1997. Board pending.

WEST MEMPHIS

Goodman, David Aaron, Pediatrics. Medical Education, University of Tennessee Center for Health Sciences, Memphis, 1993. Internship/Residency, University of Tennessee Center for Health Sciences, Memphis, 1994/1996. Board certified.

Hanson, Charles Christopher, Pediatrics. Medical Education, University of Tennessee Center for Health Sciences, Memphis, 1993. Internship/Residency, University of Tennessee, 1994/1996. Board certified.

OUT OF STATE

Hahn, Kenneth Aaron, Cardiovascular Medicine. Medical Education, University of Health Sciences, Chicago Medical School, North Chicago, Illinois, 1983. Internship/Residency, St. Francis Hospital of Evanston, 1984/1986. Board certified.

Stussy, Shawn Alan, Family Practice. Medical Education, UAMS, 1994. Internship/Residency, AHEC-Southwest, 1997. Board pending.

RESIDENTS

Belk, Robert James, Anesthesiology. Medical Education, American University of the Caribbean School of Medicine, Montserrat, British West Indies, 1997. Internship/Residency, UAMS.

Eaton-Wilmoth, Rayetta Lyn, Family Medicine. Medical Education, UAMS, 1995. Residency, AHEC-Jonesboro.

Feng, Zuliang, General Surgery/Plastic Surgery. Medical Education, Tongji Medical University, Wuhan, Hubei, P.R. China, 1995. Residency, Tongji Hospital, 1995. Fellowship, UAMS.

Gibson, Danielle Christian, Pathology. Medical Education, University of South Alabama College of Medicine, Mobile, 1997. Residency, UAMS.

Mathew, Sajini, Pathology. Medical Education, Kasturba Medical College, Mangalore, India, 1991. Residency, UAMS.

STUDENTS

Athota, Anupama Bharathi
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Things To Come

November 13-14

23rd Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 1-800-325-9862.

December 13

14th Annual CME Clinical Update in Pulmonary Medicine. Trump World's Fair Casino, Atlantic City, New Jersey. Sponsored by the Department of Pulmonary Medicine, Deborah Heart & Lung Center. For more information, call 201-385-8080.

February 19-21, 1998

Cardiovascular Health: Coming Together for the 21st Century - A National Conference. Hyatt Regency Embarcadero Hotel, San Francisco, California. Sponsored by the National Heart, Lung, and Blood Institute; the Cardiovascular Disease Outreach, Resources, and Epidemiology Program; the University of California, San Francisco; and the California Cardiovascular Disease Prevention Coalition. For more information, call 415-476-5808.

February 21-23, 1998

13th Annual Mardi Gras Anesthesia Update in New Orleans. Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Department of Anesthesiology & Center for Continuing Education, Tulane University Medical Center. For more information, call 504-588-5466 or 1-800-588-5300.

February 22-27, 1998

Advances in Imaging: 1998. The Inn at Prospector Square, Park City, Utah. Sponsored by the Departments of Radiology at Tulane University Medical Center and Louisiana State University School of Medicine. For more information, call 504-588-5466 or 1-800-588-5300.

March 20-22, 1998

4th Annual Clinical Update on Management of the HIV-infected Patient - A Practical Approach for the Primary Care Practitioner. Crowne Plaza Hotel, New York, New York. Sponsored by the Center for Bio-Medical Communication, Inc, and the American Foundation of AIDS Research. For more information, call 201-385-8080.

March 26-29, 1998

National Kidney Foundation, Seventh Annual Spring Clinical Nephrology Meetings, Consultative Nephrology Program. Opryland Hotel, Nashville, Tennessee. Sponsored by the National Kidney Foundation. For more information, call 1-800-622-9010.

April 22-26, 1998

Critical Care Medicine 1998 - 12th Annual Review and Update. Crystal Gateway Marriott, Washington, DC. Endorsed by the Society of Critical Care Medicine and announced by the Center for Bio-Medical Communication, Inc. For more information, call 201-385-8080.

April 29 - May 2, 1998

International Conference on Physician Health. Victoria, British Columbia, Canada. Sponsored by the American Medical Association and the Canadian Medical Association. For more information, call 312-464-5073.

June 23, 1998 - July 5, 1998

12-Day Study Cruise on ms Rotterdam VI - Healthcare in the 21st Century. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored by the University at Sea Continuing Education, Inc. For more information, call 1-800-926-3775.

AMS Sponsors Workshop

December 4, 1997

Coding Analysis

to Maximize Reimbursement in 1997

A hands-on workshop with informative case studies. Major emphasis is on the complex relationship between the procedure, the diagnosis, place of service, provider status and patient financial class for traditional and non-traditional (HMO/PPO) claims processing. Workshop requires a background in the basics of CPT, ICD-9 and the HCFA-1500.

**For more information,
call 501-224-8967**

Keeping Up

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

General Internal Medicine Review, Wednesdays, 12:00 noon, Room 238 Bldg. 1
Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Spring Sleep Seminar 1998, May 2 - 4, 1998, Arlington Resort Hotel and Spa, Hot Springs, Arkansas. For more information contact Bill Rivers, RPSGT at (501) 442-1272.
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Mental Health Conference, 3rd Wednesday, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Video conference. Thursday, November 20, 1997. 12 noon to 1:30 p.m. Topic: Outcomes Data from Nine State Carotid Endarterectomy Project, Outcomes from the Arkansas Provider Heart Cath Project, ESRD - New Project Information, Update on the Arkansas Foundation for Medical Care's Role in the new Medicaid Managed Care Program. Location: UAMS education building/AHEC's and Rural Hospital Affiliates. For more information, call 501-649-8501, ext. 203.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.

Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital/OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GIN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Cardiology Conference, dates vary, 7:00 p.m., locations vary
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Geriatrics Conference, 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Pine Bluff County Club. Dinner meeting.
Tumor Conference, 4th Tuesday, 12:00 noon, Medical Center of South AR, Warner Brown Campus
Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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REFERENCES

References should be limited to ten; if more than ten are listed, the author(s) may designate the ten most significant to be printed and readers will be referred to the authors(s) for the complete list. References must contain, in the order given: name of author(s), title of article, name of periodicals with volume, page, month and year. References should be numbered consecutively in the order in which they appear in the text. Authors are responsible for reference accuracy.

ILLUSTRATIONS

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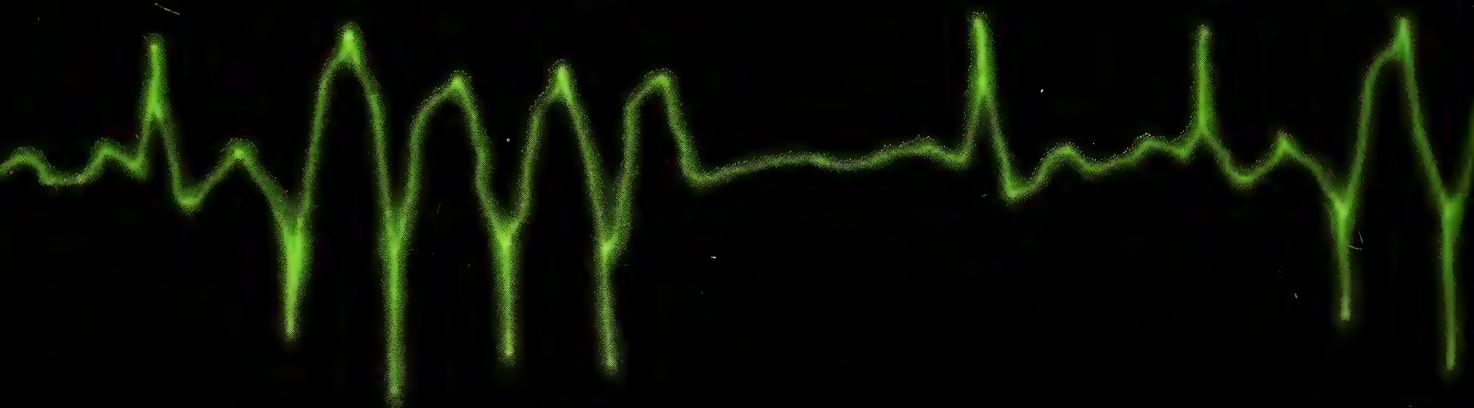
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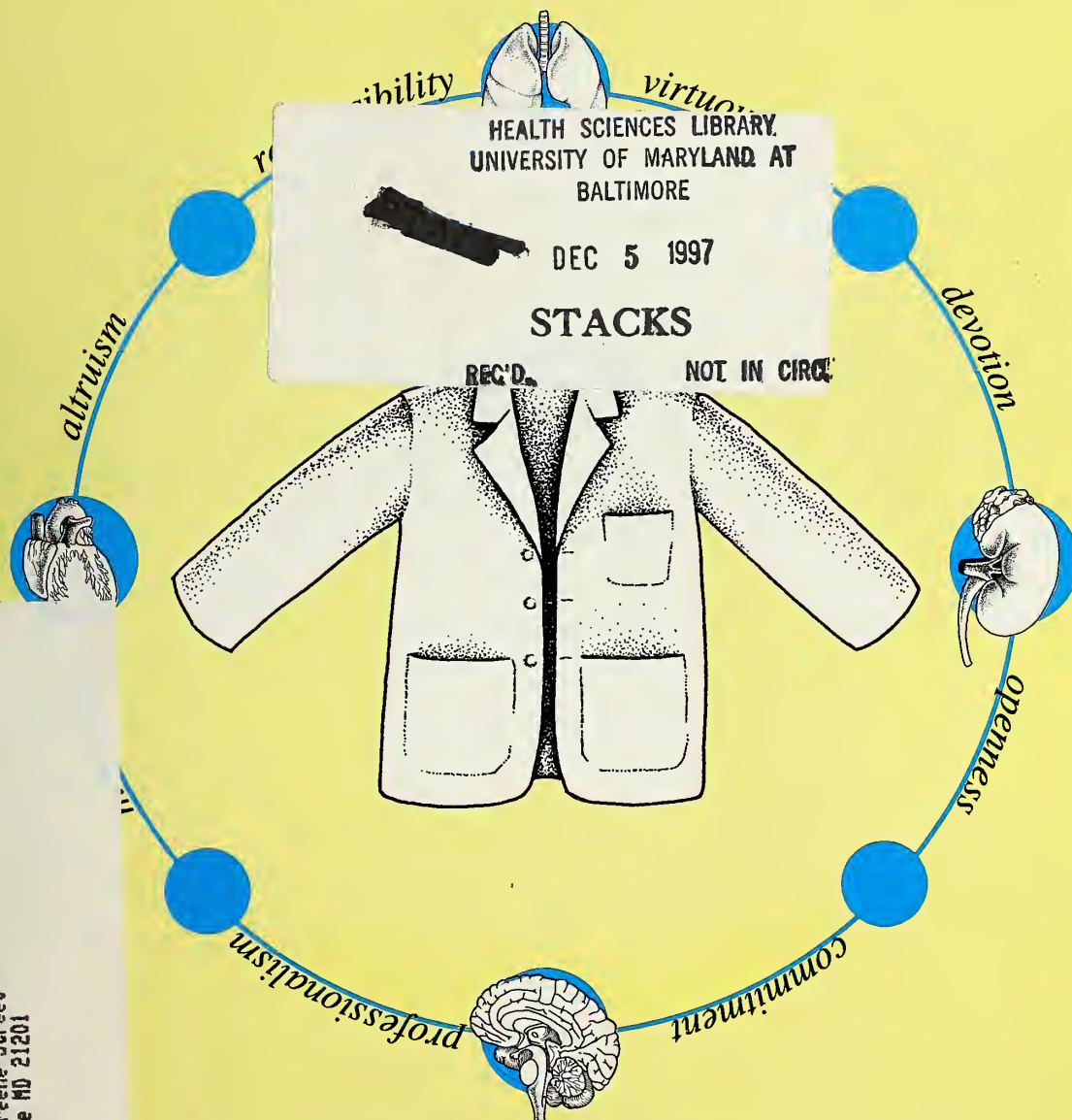
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Volume 94 Number 6

November 1997

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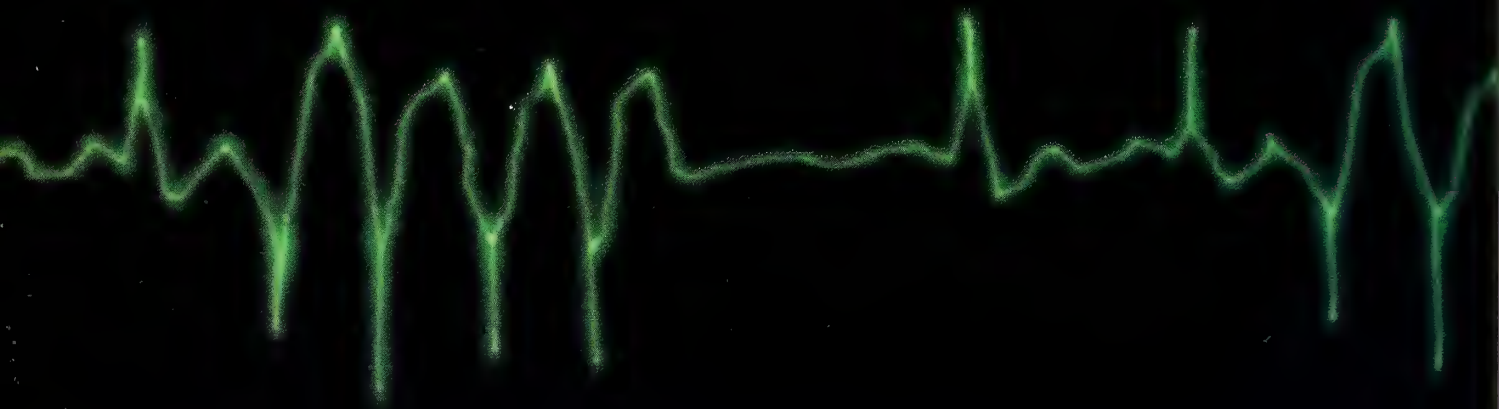
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THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

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Cover illustration by Medical Illustrator Cynthia Clarke of Little Rock.

STDs Surprisingly Prevalent - *Diagnosis should be pursued aggressively*

Vickie Henderson, M.D.

In this issue of *The Journal*, Dr. Nancy Andrews of the UAMS Department of Obstetrics and Gynecology has written an article in review of sexually transmitted diseases and the most recent Centers for Disease Control and Prevention guidelines for treatment. Sexually transmitted infections affect men and women in this country in epidemic proportions. Many of these diseases have serious and even life-threatening sequelae. The outcome can sometimes be optimized by early detection and treatment. Therefore, it is important for physicians to maintain a high index of suspicion in testing for sexually transmitted diseases. Comprehensive therapeutic measures, as outlined in Dr. Andrews' article, as well as patient education and prevention are also necessary.

Due to the prevalence of these infections, a significant amount of health care money is spent diagnosing, treating and sometimes managing chronic conditions associated with sexually transmitted diseases. Although these diseases are preventable, behavioral modification is necessary. Patients who engage in high risk behaviors should be educated regarding the impact that sexually transmitted diseases may have on their health and life. Many patients are not aware of such associations as the link between the Human Papilloma Virus and cervical cancer, or chlamydia and infertility. High risk patients should also be offered pharmacologic prevention such as vaccination against hepatitis B.

Once a patient has been diagnosed with a sexually transmitted disease, treatment of sexual contacts should be addressed. Many times patients are concerned with the social stigma of certain diseases such as genital herpes. Physicians should be prepared to offer counseling and accurate information regarding these concerns. It is particularly important to be atten-

tive to the psychosocial needs of patients diagnosed with sexually transmitted diseases. Especially since a good understanding of the infectious disease can often reduce further transmission.

In summary, sexually transmitted diseases are surprisingly prevalent. Effective treatment is often available, therefore diagnosis should be pursued aggressively. In addition to pharmacologic treatment, patient education and counseling should be an integral part of therapy since prevention is the key to reduce sexually transmitted diseases, thus their impact in health care.

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* Dr. Henderson is a specialist in obstetrics/gynecology with the Millard-Henry Clinic in Russellville. She is a member of the editorial board for *The Journal of the Arkansas Medical Society*.

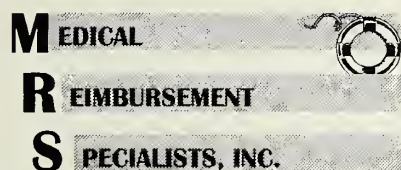
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Medicine in the News

Health Care Access Foundation

As of October 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 13,131 medically indigent persons, received 25,038 applications and enrolled 48,736 persons. This program has 1,797 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

National Market Trends

The following information is provided by the AMA FED-NET, 9/15/97 and 10/7/97

*The battle between physicians at Tucson's Thomas-Davis Medical Centers, who voted last year to join the Federation of Physicians and Dentists, and FPA Medical Management, Inc., which recently bought Thomas-Davis, continues to get ugly. The National Labor Relations Board, which has recognized the physician bargaining unit, is taking FPA to court to force it to recognize and collectively bargain with the union.

FPA is also refusing to meet with non-physician employees who have voted to form a union. Physicians continue to leave Thomas-Davis in large numbers, complaining of salary cuts, grueling work hours, and byzantine referral processes. (American Medical News, September 8, 1997)

*A leading Chicago neurosurgeon has put together Neurosource, a new physician practice management company that plans to purchase and manage neurosurgery practices. Leonard J. Cerullo, MD believes that by consolidating neurosurgery practices, neurosurgeons will increase their bargaining position with HMOs. Dr. Cerullo hopes to take the company public in 3-5 years. It is currently funded by \$12.5 million in start-up capital. (Modern Healthcare, August 25, 1997)

*Blue Cross & Blue Shield of Georgia has been sued in a class action by nine not-for-profit charitable organizations alleging that the plan illegally transferred public assets to private investors when it converted to for-profit status. The Georgia Blues was the first to convert with approval of the national Blues, and the

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3. Filing date: September 30, 1997	B. Paid and/or requested circulation:		
4. Frequency of issue: Monthly	1. Sales through dealers and carriers, street vendors and counter sales (not mailed):	0	0
5. No. of issues published annually: 12	2. Mail subscriptions:	2,896	2,829
6. Annual subscription price: \$30 domestic; \$40 foreign	C. Total paid and/or requested circulation:	2,896	2,829
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13. Publication name: The Journal of the Arkansas Medical Society	2. return from news agents:	0	0
14. Issue date for the following circulation data: August 1997.	I. Total (sum of G, H(1 and 2):	4,304	4,165
	Percent paid and/or requested circulation (C/G x 100)	69	69
	I certify that all information furnished on this form is true and complete. Ken LaMastus, Executive Vice President		

Georgia legislature passed a special law allowing the conversion to occur without establishment of a foundation. The lawsuit alleges that that law violated the state constitution. (Modern Healthcare, September 8, 1997)

*There are conflicting reports as to how many individuals have established medical savings accounts (MSAs) since the MSA pilot program took effect January 1. The Internal Revenue Service reports that less than 10,000 people had established MSAs as of April 30. The program permits up to 375,000 people to establish MSAs. However, industry experts believe that up to 50,000 MSAs had been established by June. (Modern Healthcare, August 25, 1997, BNA's Health Law Reporter, Aug. 21, 1997)

*Apparently the deal by Blue Cross and Blue Shield of Massachusetts to sell its nine health centers to the local physician practice management company (PPMC) Physician Quality Care, Inc. did not materialize, and the Blues has announced its intention to negotiate exclusively with PPMC giant MedPartners, Inc. (Boston Globe, September 10, 1997)

*Pennsylvania's mandatory Medicaid managed care program, which was February 1, 1997, has been a bust for three of the four HMOs providing services for Philadelphia area Medicaid recipients. Health Partners of Philadelphia has lost \$15.3 million on Medicaid revenues in the first half of 1997, with Healthcare Management Alternatives reporting \$2.7 million loss year-to-date. Oxford health plans lost \$3.7 million in the first quarter, but just \$191,156 in the second quarter. Financial results for the fourth HMO, Keystone Mercy Health Plan, were not available. (BNA's Managed Care Reporter, Aug. 27, 1997)

*A survey of 910 primary care physicians in 89 California group practices found that primary care physicians are less satisfied with the quality of care they provide to capitated patients compared to patients in non-capitated plans. Seventy-nine percent said they were able to treat their patients overall according to their best judgment with just 51% stating that they were able to treat patients in capitated plans according to their own judgment. (Hospitals and Health Networks, Sept. 5, 1997)

*Nearly a quarter of the 4,978 primary care physicians surveyed by the Center for Studying Health System Change and Mathematica Policy Research, Inc. reported that the complexity and/or severity of patient's conditions they are expected to treat without referral is greater than it should be. Thirty-eight percent of the 3,976 specialists expressed the same concern about scope of "gatekeeper" physician services. (State Health Watch, August 1997)

*A study by Case Western University School of Medicine found that for major illnesses, the risk of

death was 19% lower in major teaching hospitals compared to non-teaching hospitals, and that the length of stay was also 10% shorter. (American Medical News, Aug. 18, 1997)

*Oxford Health Plans, Inc. has again responded to pressure from the New York Attorney General and agreed to reimburse participating physicians for sign language interpreters. The attorney general had received complaints from consumers that the HMO had refused to provide them with interpreters. While Oxford continues to maintain that the physicians - and not the plans - are responsible for paying for interpreters, it nonetheless agreed pay the fees under the terms of the settlement. (BNA's Managed Care Reporter, Sept. 18, 1997)

*The ten largest New Jersey HMOs have signed an agreement developed by the state departments of health and insurance requiring them to reimburse physicians and hospitals within 60 days after a clean claim is filed or pay 10% interest annually. The department officials are also working on regulations that would turn the voluntary agreement into law. The Medical Society of New Jersey estimates that New Jersey physicians are owed between \$50 million and \$100 million in overdue payments. (Bergen Record, September 18, 1997)

*The physician-owned and -directed Unified Physicians of Washington (UPW) has been taken over by the state insurance commissioner because of serious financial troubles. UPW has liabilities of \$1.5 million, and state law requires that health services contractors have a net worth of \$1 million. UPW was founded in 1995, had raised \$7 million in two stock offerings to physicians, and has 4,336 enrollees. The insurance commissioner will determine whether to rewrite UPW's business of transfer the enrollees to other carriers. (Seattle Business Times, September 11, 1997)

*The Federal Trade Commission is investigating Brown & Toland, a 1,250 physician San Francisco group practice amid allegations that its "aggressive assault" on the San Francisco market violates antitrust law. The group has close relationships with two large San Francisco hospitals, and the FTC is concerned that these relationships, in combination with the group's size, give it too much leverage with HMOs. (San Francisco Business Times, September 22, 1997)

*Humana has announced plans to develop a physician practice management division to run its 100 physician clinics in five markets. The clinics are currently run by the Humana plans in the individual markets. Although some observers speculated that Humana's longterm intention may be to sell the clinics - as other HMOs have done recently -- Humana officials deny this and state that the plan to develop the division into a successful business unit. (Modern Healthcare, 9/1/97)

Disciplinary Action Bulletin – Arkansas State Board of Nursing

The nurses listed in this bulletin have had disciplinary action taken against their licenses. When a nurse's license to practice nursing is revoked or suspended, return of the license to the Board Office is requested; however, licenses may not be returned. Also, individuals placed on probation must continue to meet conditions for the retention, or future reinstatement, of their licenses.

When hiring such an individual, the Board should be contacted. Therefore, the Board routinely suggest this list be shared with the appropriate supervisory personnel and recruiters in your organization.

At the completion of the disciplinary period, the nurse applies for reinstatement. Reinstatement is contingent upon meeting the conditions set forth by the Board.

In accordance with the Arkansas Nurse Practice Act and the Arkansas Administrative Procedure Act, the Arkansas State Board of Nursing took the following action after individual hearings:

DISCIPLINARY: September 10, 1997

- *Manda Beth Sample Rhines, LPN 30252 (Batesville) Suspension – 2 years; civil penalty - \$1,000
- *Nina F. Anderson McDuffee, RN 26521 (Paragould) Suspension – 4 years; civil penalty - \$525

- *Andrew Jackson Smith, RN 50941 (Mobile, AL) Revoked
- *Margie Nell Amis Curry, LPN 15050 (El Dorado) Suspension – 2 years; civil penalty - \$2800

CONSENT AGREEMENTS:

- *Robin Christine Moore Proctor, RN 36210 (Magnolia) Probation – 2 years; civil penalty - \$500
- *Jennifer Susanne Schoultz Shipman, RN 44461 (Little Rock) Probation – 2 years; civil penalty \$500
- *M'Lou Denise Barnett Bartet, RN 53197 (Shreveport, LA) Probation – 30 months; civil penalty - \$500
- *Susan Jean Zimmerman, LPN 20805 (Mabelvale) Probation – 2 years; civil penalty - \$500
- *Susan Ann Hartill Tipton, RN 41141 (Mountain Home) Probation – 1 year; civil penalty - \$500
- *Laurie Dawn Morstad, RN 24210 (Van Buren) Probation – 3 years; civil penalty - \$500

REINSTATEMENT:

- *Melinda Kay Watts Byrns, LPN 25125 (Bellingham, WA) 8/25/97

LETTER OF REPRIMAND:

- *Dan Bocan, RN 13094, CRNA 152 (Magnolia) 8/29/97

OTHER:

- *Sandra Elizabeth Gingras, RN 53116 (Orlando, FL) APN Temporary Permit 281382602 – Expired 1/18/97

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AMS Newsmakers

Dr. George Randall Guntharp, a family practitioner of Pocahontas, recently received the Arkansas Osteopathic Medical Association Humanitarian Award.

Dr. William R. Keadle, a general practitioner of Glenwood, recently received the Descendant of DeSoto Award by the city of Hot Springs. The award is given to those who make worthy contributions to the promotion and economic development of the Hot Springs area. Dr. Keadle has been active in promoting and researching Indian heritage in the area.

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. Recipients for the month of September are as follows: William H. Benton, Little Rock; Jack L. Blackshear, Little Rock; John Darrell Ginger, Fayetteville; Brian H. Hardin, Little Rock; Melvin Edward Nance, Jonesboro; and William Luther Paul, Little Rock.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:
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Sexually Transmitted Diseases: A Review

Nancy Andrews, M.D.*

Sexually transmitted diseases account for millions of visits to physicians each year. With the exception of Human Immunodeficiency Virus, the organisms themselves have been known for many years.

Chlamydia trachomatis is the most common sexually transmitted disease with over four million new cases each year.¹ It is responsible for a wide spectrum of clinical infections. The more common ones in women include mucopurulent cervicitis, salpingitis, bartholinitis, perihepatitis, urethritis, tubal occlusion with subsequent ectopic pregnancies and tubal factor infertility, pharyngitis, LGV and conjunctivitis. In men you see urethritis, epididymitis, prostatitis, proctitis, pharyngitis, conjunctivitis, lymphogranuloma venereum, Reiter's syndrome and sterility. In infants the spectrum includes conjunctivitis, pneumonia and otitis media.²

Transmission rates for *chlamydia trachomatis* are estimated to be 40% for male-to-female and female-to-male transmission is 32%.³ Infants born to moms with cervical disease can develop conjunctivitis (20-25%) and pneumonia (10-20%).⁴ Concomitant infection with gonorrhea occurs 20-40% of the time in men and 30-50% of the time in women.⁵

In women, infection with *C. trachomatis* produces no symptoms. However, in men dysuria, frequency or urethral discharge are most common presenting symptoms.

Diagnosis in men and women is made on isolation of the organism in culture. In high prevalence populations (>5%) any one of the available assays (Microtrac, Chlamydiazyme, PACE 2, Gen-Probe, PCR) will yield good results. In low prevalence populations (2-3%) the polymerase chain reaction test is the most accurate and reliable. Since *C. trachomatis* is an obligate intracellular pathogen it is best isolated from cell scrapings from the infected site.⁶

The Centers for Disease Control and Prevention (CDC) recommends doxycycline 100 mg po bid for 7 days or azithromycin 1g orally in a single dose for treatment of lower genital tract disease. Alternate regimens include ofloxacin 300 mg po bid x 7 d, erythromycin base 500 mg po qid x 7 d, erythromycin ethylsuccinate 800 mg po qid x 7d or sulfisoxazole 500 mg qid x 10 d.

In pregnancy the erythromycin base regimen is the regimen of choice.⁷

Patients do not need a test of cure after completing treatment with doxycycline or azithromycin. Retesting is considered with the alternative regimens, persistent symptoms or suspicion of reinfection.

Trichomonas vaginalitis is the second most common sexually transmitted disease with three million new cases per year.²

One half of all patients are symptomatic. The women that are symptomatic generally present with a copious malodorous discharge.

Diagnosis is best made by culture, however, most labs do not stock the necessary media (Diamonds or Kusferberg) to do cultures. Diagnosis is usually made with identification of the motile protozoan on a fresh saline wet mount, sensitivity is operator dependent. In women a swab of infected material is used and for males urine sediment is used. Identification on papsmear is 50-70% accurate.⁸ New diagnostic methods, ELISA, monoclonal antibodies and latex agglutination, are being used.

The CDC recommends metronidazole 2 gm po single dose as the regimen of choice. The 250 mg tid x 7d regimen is equal in effectiveness and side effects. The CDC recommendation in pregnancy is as follows, first trimester (symptomatic) – treat with clotrimazole and follow with metronidazole in the second trimester. In the second and third trimester they recommend the usual metronidazole regimen.⁷

Treatment failures require additional metronidazole doses. Initially use 500 mg bid for 7d, if that fails use 2g qd x 3-5d. If infection still persist consider reinfection or drug interactions (phenytoin or phenobarbital). For absolute refractory cases use 500-750 mg qid x 7-10d, check a CBC prior to using this regimen. Use of greater than 3 g per day of metronidazole can be associated with irreversible neuropathies.

Gonorrhea is one of the most commonly reported sexually transmitted diseases. It is an important cause of urethritis (male and female), cervicitis and PID. In pregnant women it has been associated with septic spontaneous abortions (35%), PROM (22%) and chorioamnionitis.⁹

In women with genital tract disease, greater than one half will be symptomatic with a vaginal discharge, dysuria, intermenstrual bleeding, menorrhagia and

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pelvic discomfort. In men, the majority are symptomatic with dysuria and a penile exudate. Twenty percent of all women with uncomplicated gonorrhea will develop PID. Generally this occurs just before or at the end of menstruation.¹⁰

Transmission from male-to-female is 50-90% and from female-to-male it is 20-25%. The incubation period is 3-5 days.^{11, 12}

Anorectal gonococcal infection is seen in 35-50% of women with cervical disease and is common in homosexual men.¹³ Coexistent pharyngeal disease occurs less frequent at approximately 20%.¹⁴ Disseminated gonococcal infections occur predominately in women. Most cases develop in the third trimester or within one week of menses.

In men, diagnosis can be made with a gram stain of the urethral exudate (90%). In females, the gram stain is only correct in 60% of cases so diagnosis requires isolation of the gonococcus in culture.

Optimal recovery occurs if the swab is placed in the endocervix for 15-30 seconds then placed immediately in transport media.

The CDC recommendation of treatment for uncomplicated gonococcal infections is ceftriaxone 125 mg i.m. x 1 dose or cefixime 400 mg po x 1 dose or ciprofloxacin 500 mg po x 1 dose or ofloxacin 400 mg x 1 dose PLUS a regimen for *C. trachomatis* coverage.⁷ Alternate regimens are also available. Complicated gonococcal infections (disseminated, endocarditis or meningitis) require hospitalization and high dose ceftriaxone (1-2 grams q 12-24 hours) therapy.⁷ Pharyngeal infections require ceftriaxone 250 mg i.m. x 1 dose or ciprofloxacin 500 mg po x 1 dose. All (symptomatic and asymptomatic) partners should be treated. The quinolones (ciprofloxacin and ofloxacin) are contraindicated in pregnancy.

Patients with positive cultures should be screened for syphilis. The ceftriaxone regimen is effective against incubating syphilis.⁷ The erythromycin and doxycycline regimens used for *C. trachomatis* are also effective against incubating syphilis.⁷

A test of cure is no longer needed for uncomplicated gonorrhea unless the patient continues to have symptoms.

Syphilis is an infection caused by the spirochete *Treponema pallidum* has increased in incidence over the past decade. Syphilis is a chronic infection with many phases.

In primary syphilis, appearance of the painless "hard" chancre is the hallmark finding. This ulcerated lesion with raised borders and an indurated base appears 10-90 days after exposure. This lesion will disappear in 2-6 weeks even if no treatment is rendered. In men its easily visualized. In women however lesions on the vagina and cervix are frequently missed. Extragenital sites are also common (anus, mouth,

oropharynx, nipple). Painless inguinal adenopathy is frequently present. Patients are extremely infectious during this stage.

When the chancre first appears commonly used tests (VDRL, RPR, FTA-ABS, MHA-TP) may be nonreactive. Because it can take up to 4-6 weeks for these tests to become positive, a sample should be obtained for dark-field examination. False positive nontreponemal tests can be seen in viral infections, autoimmune diseases, narcotics abuse and pregnancy. A high titer (> or equal to 1:16) is usually associated with active syphilis.

Secondary syphilis occurs 6 weeks to 6 months after the primary inoculation. Systemic manifestations include generalized lymphadenopathy (85%), dermatologic (maculopapular rash on palms and soles, mucous patches) occur in 70%. These systemic findings will disappear in 2-6 weeks without treatment. Again the patient is infectious during this stage.

Early latent syphilis is syphilis that is untreated less than 1 year duration. Patients are only infectious if they have exacerbation of skin lesions.

Treatment of primary, secondary and early latent syphilis is benzathine penicillin, 2.4 million units i.m. x one dose. Penicillin allergic patients (nonpregnant, HIV negative) can be treated with doxycycline 100 mg po bid x 14 days or tetracycline 500 mg po qid x 14d or erythromycin 500 mg qid x 14 days. Pregnant patients and HIV positive patients that are penicillin allergic should undergo penicillin treatment after desensitization.

Late latent syphilis (greater than 1 year duration) are treated with benzathine penicillin, 2.4 million units i.m. x 3 doses at one week intervals. Alternatives include the doxycycline or tetracycline extended to four weeks. Again, the same rules apply to the pregnant and HIV positive patients.

Tertiary syphilis will occur in 30% of untreated patients. Manifestations include cardiovascular (aortic aneurysm and aortic insufficiency) and central nervous system (general paresis, tabes dorsalis, meningovascular syphilis). The Argyll Robertson pupil (does not react to light, but accommodates) is considered pathognomonic for tertiary syphilis.

Gumma formation in various organ systems is also seen. Treatment is the same as for the latent phase.

Neurosyphilis can occur at any phase of the disease. Examination of the CSF should be considered in any patient with syphilis who has 1) neurologic or ophthalmic signs or symptoms, 2) evidence of active syphilis (aortitis, iritis gumma), 3) treatment failures, 4) HIV infection, 5) serum nontreponemal titer > or equal to 1:32, unless the duration is known to be less than one year, 6) Nonpenicillin treatment is planned, unless duration of infection known to be < one year.²

Treatment for neurosyphilis is 2-4 million units, IV every 4 hours for 10-14 days. The alternate regimen

is 2.4 million units procaine penicillin i.m. daily, plus probenecid 500 mg po qid qd for 10-14 days.⁷

Congenital syphilis is a risk to all fetuses of untreated moms. This is a transplacental infection. In untreated primary and secondary cases the probability of the fetus having congenital syphilis is 50% and the other 50% are stillborn, neonatal deaths or premature deliveries. In early latent syphilis, 40% develop congenital syphilis, 20% are premature, 16% are stillborn and 4% have neonatal demise (15%).

Genital herpes is caused by *Herpes simplex 1 and 2* virus. Patients frequently present with painful ulcerated lesions and inguinal adenopathy. Primary infections are associated with fever and malaise. In comparison to recurrent infections, in primary infections the duration of the lesions is 15 days versus 7 days for recurrent, there are a greater number of lesions, cervical lesions are more common and viral shedding lasts for a mean of 12 days versus 5 days for recurrent lesions. Antibodies in the acute serum can determine a recurrent infection from a primary infection. Recurrence rates are higher in HSV-2 (60%) infections than in HSV-1 (15%) infections.²

The transmission rate from adult-to-adult is approximately 75% in the presence of a lesion.¹⁶

Diagnosis can be with viral cultures. Viral cultures have a high false negative rate (30%). False negative results are less likely in primary episodes, if the vesicles and pustules are cultured before crusting occurs and if the culture is taken within 72 hours of the appearance of the lesion. Monoclonal antibody testing, PCR and ELISA preps are also available.

In pregnancy, several key points will summarize the risk of neonatal transmission: 1) the risk is highest (40%) when there is primary maternal infection especially if it occurs in the third trimester, 2) the risk of transmission is lower (<1-4%) in recurrent maternal infection. Disseminated neonatal infections are devastating with a high mortality (>50%) and morbidity rate. Transmission to the fetus is 25-50% if the infant is exposed to an infected maternal lower genital tract. Experts recommend cesarean delivery for patients with active lesions at the time of labor even if the rupture of membranes has occurred. The use of viral cultures is controversial but most agree that weekly prenatal cultures are excessive. Some feel that if an outbreak occurs close to term, cultures every 3-5 days may be helpful.¹⁷

Treatment of the primary herpes is acyclovir 200 mg po 5x/d for 10 days. Severe recurrent episodes can be treated with acyclovir 200 mg po 5x/d for 5 days, Famvir 125 mg po bid x 5 days or Valtrex. Suppression can be obtained with acyclovir 200 mg po tid or 400 mg po bid. The CDC recommends reassessment after one year if suppression is used. Severe primary infections may require intravenous acyclovir therapy.⁷

Human papilloma virus (HPV) is the most common viral sexually transmitted disease.

HPV types 6 and 11 are most closely associated with the exophytic genital wart and respiratory papillomatosis in infants. HPV 16, 18, 45 and 56 are most closely associated with genital neoplasia.^{18, 19}

The transmission rate adult-to-adult is 65%. The transmission rate from mom-to-fetus is 1 per 1,000 exposures.²⁰ Patients are usually asymptomatic but some will notice the lesions. Diagnosis is made on characteristic appearance of the lesions and biopsy.

Treatment is based on the site of lesions and the extent of the disease. Eradication of the virus is impossible so the goal of treatment is cosmetic with removal of the lesions and amelioration of the signs (abnormal pap smears). Patients need to understand these goals. The efficacy of treatments can be as high as 95% with recurrence rates equaling 25% within 3 months.

The CDC recommends for external genital/perianal warts, cryotherapy or condylox 0.5% solution bid, 3x/wk for 4 cycles or podophyllin 10-25% q weekly for 6 cycles or Trichloroacetic acid weekly for 6 weeks or electrocautery. Podopilox and podophyllin are contraindicated in pregnancy.⁷ Other modalities include laser, simple excision or Imiquimod (Aldara) cream, 3x/week for up to 16 weeks, or 5 FU cream (Efudex). Efudex is associated with severe blistering of the vulvar area.

Chancroid is caused by the organism *Haemophilus ducreyi*. Patients present with a soft, tender chancre. Inguinal adenopathy (Bubo) occurs 7-10 days afterward and is unilateral. May frequently rupture with subsequent ulcer formation.

Diagnosis can be made on gram stain "school of fish" (50%), culture and/or presence of the characteristic lesion. Exclusion of other ulcerative sexually transmitted diseases is needed.

The CDC recommends azithromycin 1 gram po x one dose or ceftriazone 250 mg i.m. x one dose or erythromycin base 500 mg po qid x 7 days. A follow-up exam 3-7 days after initiation of treatment is recommended.⁷

Granuloma inguinale (Donovanosis) is caused by *Calymmatobacterium granulomatis*. The clinical presentation is characterized by a painless beefy red and velvety ulcer. Inguinal adenopathy is absent but pseudobubo formation is present.

Diagnosis is made with a smear from the infected site using Giemsa or Wright stains.

The CDC recommends tetracycline 500 mg, qid for 3-4 weeks or until the lesions are healed. Chloramphenicol 500 mg tid or gentamicin 1 mg/kg bid can be used if tetracycline fails.⁷

The acquired immunodeficiency syndrome (AIDS) is caused by the human immunodeficiency virus (HIV). It is newest of all sexually transmitted diseases and covers a wide spectrum of clinical manifestations and

consultation with an expert and a larger text is necessary.

It is important to consider that patients with other sexually transmitted diseases are considered to be high risk for HIV infection especially those with ulcerative diseases. Significant advances have been made in preventing vertical transmission, so early detection in pregnancy can make a big difference.

Viral hepatitis can be caused by multiple types of the virus. Hepatitis B is the most common (45%) of these and is predominately transmitted by sexual contact, parenteral exposure or vertical transmission.

Asymptomatic persistence of HbsAg without any liver abnormalities is the most common form. The majority of cases 85-90% of patients will have complete resolution of the virus with subsequent development of protective antibodies. The remaining patients become chronic carriers. Of the chronic carriers, less than 5% will develop chronic liver disease and even a smaller percentage develop hepatocellular carcinoma. Vertical transmission is highest with acute hepatitis B in the third trimester (80-90%).

Diagnosis is made using serologic markers. Treatment is primarily supportive. Preventive measures with HBIG and active immunization is available.⁷

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Cover Story

What it takes to be a Good Physician White Coat Ceremony

UAMS, College of Medicine, Class of 2001



Dr. Barnes addresses medical students at the White Coat Ceremony.



Medical Students line up to receive the oath and assistance in putting on their white coats.



Dr. Robert W. Barnes, Professor and Chair, Department of Surgery at UAMS, and Dr. Charles W. Logan, Arkansas Medical Society President, assist medical students in putting on their white coats.



According to Dr. Robert Barnes and Dr. Charles Logan, it takes altruism, responsibility, virtuousness, devotion, openness, commitment, professionalism and morality, among other things, to be a good physician. The following two special articles are speeches by Dr. Barnes and Dr. Logan to UAMS, College of Medicine, medical students of the Class of 2001 at the White Coat Ceremony on August 7, 1997.

Only You Should Manage Care

*An address to the UAMS, College of Medicine,
Class of 2001 during the White Coat Ceremony*

Robert W. Barnes, M.D.*

At the outset, I want you to know how pleased and honored I am to have been invited by Dean Wilson to address you on this very special occasion. This is only the second year that the White Coat Ceremony has taken place at this and many other medical schools throughout this country. What better way to symbolize your rite of passage across the threshold as you enter into the most noble of professions. And although some of you may question Dean Wilson's sanity about asking two surgeons, Dr. Charles W. Logan and me, to participate in this ceremony, especially in this era emphasizing primary care, soon enough you will realize Dean Wilson has all of his wits about him.

Although there was no such thing as a White Coat Ceremony when I entered medical school, there was an event which vividly stands out in my memory. As medical students, we were "on call" to donate blood in cases of emergency. As luck would have it, I was called when a pilot of a private plane crashed and required emergency operation. After donating a pint of blood, I went to observe the operation - because of my lifelong interest in surgery - and I promptly fainted. So, although I encourage all of you to become blood donors at our UAMS blood bank, beware of donating before you observe your first operation!

A word about my choice of title for this address. We are besieged nowadays by the media about the escalating costs of health care and the virtues of managed care to control these costs. However, I am in total agreement with Dr. Bernard Lown, the pioneering Cardiologist who developed the first cardiac defibrillator and who recently wrote a marvelous book entitled *"The Lost Art of Healing."*¹ At the beginning of his book, Lown states, *"Medicine's profound crisis, I believe, is only partially related to ballooning costs... the basic reason is that medicine has lost its way, if not its soul. An unwritten covenant between doctor and patient, hallowed over several millennia, is being broken... A three-thousand-year tradition, which bonded doctor and patient in a special affinity of trust is being traded for a new type of relationship. Healing is replaced with treating, caring is supplanted by managing, and the art of listening is taken over by technological procedures... The rot will continue until doctors reconnect with their tradition."* This then is what we should share this evening - not managed care

in the business sense but how *you* should manage your patient's care in the future.

First of all, how many of you knew before you entered high school that you would become a doctor? I ask this question because I knew at age seven I would become a surgeon, perhaps stimulated by my "invention" of a modified crochet hook for my father, a family practitioner, whom I assisted when he performed vasectomies in our home which served as his office. For most of you, the decision to become a doctor came to you as you advanced your education, perhaps stimulated by a powerful role model or by attributes of your own personality, which I would like to uncover in a moment. However, regardless of how you chose to enter this profession, I am assuming that you have done so because of the almost universal attribute enunciated by medical school applicants, namely *devotion* to help others. No matter what you call it - commitment, altruism, service, beneficence - devotion to your patients assumes primacy among the 6 qualities that define a good doctor. Despite the national trend toward more controlled lifestyles in physician practice, you should try to cultivate what Dr. Lown describes as a "romance with medicine" - what better way to describe our devotion to our profession and our patients!

My second question of you is: What do you remember from your college commencement address? Is it not somewhat frightening to realize that you cannot remember the details from the last lecture you attended before entering medical school? How do you think you can become a doctor with such a bad memory? The answer lies in the fact that what you do remember best in college are those things that you opened yourself up to as an active participant in your learning. Thus, the second attribute of a good physician is *openness* - the ability to communicate in the truest sense of the word - with your teachers (or as I prefer to call us, more senior learners), with your peers and, most important, with your patients. And because a matriculation address is no different than a commencement address, and both strive not to be memorable, I am thus departing from tradition and allowing you to help me give this ceremonial address. Somewhere up there, Socrates would be proud of us. You have the opportunity to be the first medical school class which clamors for the educational opportunity to have active discourse with your faculty, both during

* Dr. Barnes is Professor and Chair of the Department of Surgery at UAMS.

the basic science and clinical years of your experience. What better way to prepare yourself for the communication skills of bonding with your patients! Dr. Lown reminds us that "*Words are the most powerful tool a doctor possesses.*" To this I would add that many of those words should be the patient's; listening is as powerful a diagnostic tool as are the physician's words a therapeutic tool.

What other attributes do you bring to the medicine profession? *Caring* is the third quality of a good doctor, as conjured up in the related attributes of compassion, sensitivity, empathy, kindness and humanity. What is paradoxical about our profession is that most of you manifest this attribute of caring now as much as at any time in your life. Our challenge, and yours, is not to let the rigors of the medical educational process erode your caring attitude. No matter what vicissitudes you face, treasure your capacity to care throughout your life.

What do you believe is the quality of a good doctor that in recent years has been eroded most in the eyes of the public? If you answered *trust*, you are correct. While patients often trust their own personal physician, their trust in the profession is being tested. You must strive lifelong to sustain your patients' trust by your honesty, integrity, confidentiality and your ethical commitment to nonmaleficence, as embodied in our profession's underlying principle of "*primum non nocere*" - above all, do no harm.

On the other hand, what attribute do you think that your patients expect of you that you never will be able to achieve? You may come to believe that even some of our faculty may unrealistically expect this of you on the exams! The answer, of course, is *omniscience*, or the quality of knowing everything. However, I challenge you to aspire to omniscience, because for its very elusiveness, you will develop a covenant with yourself for life-long learning and self-study, and your quest for knowledge will be tempered by the wisdom that you can never know enough. To knowledge, we should also add the skills and judgement you will employ on your road to becoming the best doctor you can be. This quest for always bettering yourself can be your driving force. Even though I have asked you to help me with this address, in the past month, I have enjoyed immersing myself in this subject by reading both Dr. Lown's book and a recent book by Stewart Wolf on "*Educating Doctors*,"² the book of William Osler's writings published in 1905,³ and 151 papers in my personal file on the patient-doctor relationship, including the original classic article by Francis W. Peabody on "*The Care of the Patient*,"⁴ which he closed with the memorable words: "...the secret of the care of the patient is in caring for the patient."

After all of these attributes, what quality of a good doctor is most important to sustain you through the demands of your education and your professional career? The same one that has probably sustained you

so far - namely, *reflection* or the capacity to pause and re-charge your batteries through self-discovery, inquiry or creativity, detachment, contemplation, and, to use Osler's famous words, *aequanimity* or *equanimity*. Our more familiar modern terms include "smell the roses" or "see the forest for the trees." My final charge is that you cultivate an avocation. For me, it is growing tomatoes. Regardless of what you choose, your avocation will strengthen your vocation.

These then are the 6 qualities that you and I have defined that are the attributes of a good doctor: devotion, openness, caring, trust, omniscience, and reflection. You probably would not remember these if it weren't for the fact that I'm letting you in on a little secret - we have jointly developed the first of many acronyms or mnemonic memory aids that you will craft as you wind your way through medical school. For the first letter of each of those six qualities spell D-O-C-T-O-R. Now take out a piece of paper - there will be a short quiz!

Dr. Lown best summarized what we have been discussing this evening by quoting the moving words that the essayist, Anatole Broyard, wrote to his doctor shortly before his death from prostate cancer in 1990:

"I wouldn't demand a lot of my doctor's time. I just wish he would brood on my situation for perhaps five minutes, that he would give me his whole mind just once, be bonded with me for a brief space, survey my soul as well as my flesh to get at my illness, for each man is ill in his own way . . . Just as he orders blood tests and bone scans of my body, I'd like my doctor to scan me, to grope for my spirit as well as my prostate. Without some such recognition, I am nothing but my illness."⁵

In closing, let me tell you how much I look forward to participating in some small way to your education for the next four years. We both have something in common. You see, as the class of 2001, you will be graduating in the same year that I will be submitting my letter to Dean Wilson indicating my intention to step down as Chair of the Department of Surgery so that the search for my successor can begin. You and I have a lot to accomplish in the next 4 years. However, I won't do it all and there will be plenty for each of you to do in the future. To each and every one of you, I hope your romance with medicine will provide you with the joy it has given me and I wish you Godspeed for your journey!

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The ONLY Guide to Arkansas Health Law

The Arkansas Medical Society's *Physician's Legal Guide* represents the first ever attempt to compile the multitude of state and federal laws affecting the practice of medicine in Arkansas. The guide will quickly become a valuable resource for physicians, clinic and hospital administrators, office staff, attorneys, regulators, and many others. As an example, consider the fact that each year the Arkansas Medical Society receives hundreds of calls about medical records. Two of the most common questions asked are... *How long do physicians have to keep medical records?*... and...*Can I get copies of "my" medical record?* Seven pages of the guide are devoted to this one subject.

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Leadership and Dedication in Medicine

*An address to the UAMS, College of Medicine,
Class of 2001 during the White Coat Ceremony*

Charles W. Logan, M.D.*

I am Dr. Charles Logan. I am currently the President of the Arkansas Medical Society. I welcome you, the Freshman Class to the University of Arkansas School of Medicine.

We are faced with uncertain and evolving times in the profession of medicine. It is an exciting and challenging time, and your leadership and dedication will be critical to the future of medicine as we enter the third millennium.

The practice of medicine is undergoing enormous change and I feel that we need to maintain and nourish certain ethical standards to survive as a profession. There are those who feel medical services should be sold as a commodity and protected only by a legal contract. Allocation of resources and funds for patient care would be prescribed based on a business in which the bottom line, stock values and corporate welfare dominate. I believe it is time to re-examine our ethical traditions.

All professions have a responsibility for service to people. Society grants privileges to a profession and in turn restricts practice to its members. The profession is expected to maintain standards and develop a code of ethics based on service to mankind. There are three levels of professional ethical behavior that must be embraced.

First, there is legal ethical behavior. Professional ethics demands observation of the laws of the land. Examples of this type of legally based ethic are our licensure, prohibition against discrimination, protection of patients from experimentation and the law of torts and contracts.

A second form of professional ethical behavior is duty based. In today's morally relaxed world, new professional practices pit altruism against self interest. Most of these activities are not illegal or immoral in a right duty based ethic, but they are not consistent with the higher levels of morality that a virtue based ethic demands. Examples may include relaxed indications for diagnostic and surgical procedures, lack of availability to one's patients, patenting surgical and diagnostic technology and practicing primarily for financial gain. Exploitation of the sick is indefensible in medical practice.

The third form of professional ethical behavior is virtue based. Virtue based ethics do not fluctuate with

what the prevailing social morality will accept or tolerate. Medicine calls for a more intensive practice of virtue than most any profession. To me, this is what separates us into the profession of medicine rather than the business of medicine.

Ethics is a term we seem to understand by its very inference. Ethics, like good medical care, is difficult to define, but easily recognized when seen.

I was taught that character does count and character is simply doing what's right when no one's looking. The virtue ethic implies a character trait, disposition and habitual moral to seek perfection. A virtuous person is someone we can trust to act habitually in a good way. He is committed to being a good person in pursuit of perfection in his private, professional, and communal life. One expects the virtuous person to do right and good even at the expense of personal sacrifice and self interest. Likewise the virtuous physician is one so habitually disposed to act in the patient's interest that he can reliably be expected to do so. I hope each of you will accept the challenge to become a virtuous physician as you enter the study of medicine. The practice of medicine involves a trust and a highly confidential inner personable relationship which requires personal integrity of the highest order. This trust relationship defines the difference between duty based ethics and virtue based ethics.

Dr. Edmond B. Pellegrino, a physician and medical ethicist, spoke last fall at the annual meeting of the American College of Surgeons in San Francisco. He stated that the physician/patient relationship and the trust associated with this relationship places ethics right in the examining room. As a student in medical school, your classroom work demands ethical behavior and demands that you achieve a level of basic scientific knowledge. The skills which will result from your acquiring the academic knowledge will prepare you to enter the physician patient/relationship. You should therefore be prepared academically and ethically to meet the challenges associated with the trust relationship which will be extended by the patient to you the physician. Trust creates a chance to cure and a chance to heal. Trust equals confidence, fidelity, integrity, compassion and honesty. Ethical behavior is extremely important in the character of a physician because the physician is in a position to exploit the patient and misuse this trust. In the practice of medicine, deception

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for own benefit is truly flawed and at that point in the physician/patient relationship the quality of medicine is dramatically strained.

When I was in medical school at Vanderbilt, the Hippocratic Oath was the foundation of professional ethics. Through this oath the foundation was never in question. We were excited by change and accepted change. We had a moral understanding, and we felt scientific information could be safely woven in the physician/patient ethic. A stage of metamorphosis has subsequently occurred challenging the ethical foundation of our profession. What has changed in the physician/patient relationship? Some despair and say it is impossible to be ethical in today's climate. Machiavelli took this view a long time ago as he declared it impossible to be virtuous in a climate of non-virtuous people. The erosion of the ideal of trust and the covenant with the patient is under attack. The modern ethicist might reconstruct this relationship to the level of a contract and a commodity transaction. Our ethical concepts originated with pagan philosophers, but infusion of Judaism, Islam and Christianity became part of the fabric. Today, there is often a secular rather than a religious approach. The ethics of the community have changed. It is now every man for himself. The fidelity of trust may turn to distrust when there are conflicts of interest. Confidentiality today has fortunately been retained, but even this is challenged. Computerized medical records and publication of medical and physician information is sought by the Internet. Some would say you don't have to be a good person to be a good doctor and that it is an occupation, not a profession. Challenging our profession today is economics vs. ethics as seen in health care reform expressed in the moral dilemmas of managed care and the ethics of the market place. Are we really a commodity managed care has divided the loyalty. Job security is no longer present as doctors are deselected in the market place. Under what circumstances will we not participate? Integrity vs. societal demands is also an additional new challenge with micro management by families in demand for treatment. I say integrity and trust are important. The physician must be the final pathway. We must rebuild the ethic for the next century. We must preserve the physician/patient relationship. The individual is truly a patient, not a client, not a consumer. A case manager cannot cure. The ill are anxious, fearful and exploitable. There is an increased responsibility of the physician. The responsibility is seen in the physician's power, skill and knowledge to help and trust that exists to provide a service to the patient. The physician invites trust when he asks, "*What is your problem?*" The moral complexity, one on one is inescapable. Certain virtues are necessary to be being a physician. The notion of character, no matter what the ethical principal, no matter what the ethical policy, no matter what the legal policy, the patient will depend on you as the physician to be the kind of good person you are at 3: a.m.

when no one else is watching. That is the moment of truth. We must be faithful to the trust and act benevolent on behalf of the patient. We must act with self effacement and not self interest. Integrity, compassion, intellectual honesty and competence remain the hallmarks of our profession. In philosophy today, we must defend the ethical foundations of medical morality.

I welcome you to the Freshman Class at the University of Arkansas Medical Center and congratulate you on reaching this fine achievement. I challenge you to enter the profession of medicine with unwavering ethical values, and I ask you to pledge yourself to the pursuit of the practice of medicine with honesty and integrity and to place the welfare and rights of the patient above all else.

The ethical challenges faced by the medical profession today are many, and they may actually threaten the very heart and soul of medical practice, the physician/patient relationship. These challenges include such issues such as genetic testing, gene therapy, physician assisted suicide, DNA mapping and cloning and ethical dilemmas related to managed care. AMA physicians gathered in Philadelphia in 1847 lead by Dr. Nathan Davis. One of the first orders of business at the inaugural AMA meeting 150 years ago was to develop a medical code of ethics. There were no licensing standards, no educational standards and no ethical standards. Even in those early times, physicians decided to take a stand against greed, quackery, poor educational standards and unprincipled behavior. These issues threaten the very fabric of the medical profession in those historic times. A very strict code of medical ethics was established as they hammered out the AMA's first code of medical ethics 150 years ago. These principles were distributed widely into communities throughout the country and this very strict code of medical ethics was accepted by physicians and received enthusiastically by the public. As a result of these strict ethical standards, the medical practice and the medical profession experienced a steady rise in popularity as an accepted honored profession.

Today's challenges can best be addressed if we rededicate ourselves to the foundations of medical ethical behavior which have supported the physicians of this country now for 150 years. Our medical profession and its ethical issues have seen a lot of change since the first AMA meeting and more change can be expected in the years ahead, but our commitment to put our patients first is the most important ground we share with the pioneering colleagues who came to Philadelphia in 1847 and the richest gift we can extend to our colleagues in the future.

I challenge you, the Freshman class of 1997-1998 to accept the personal and professional ethical challenges which make a difference for the profession of medicine.

Congratulations as you receive your white coat this evening. Thank you very much.

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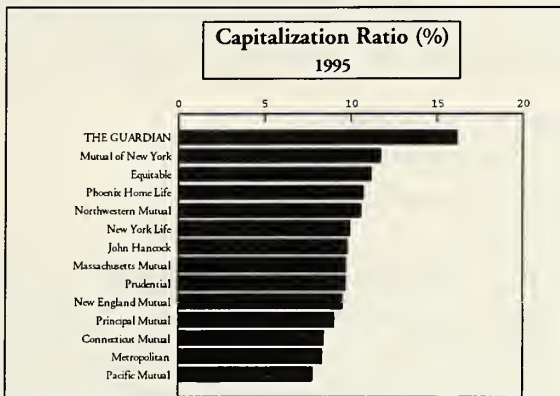
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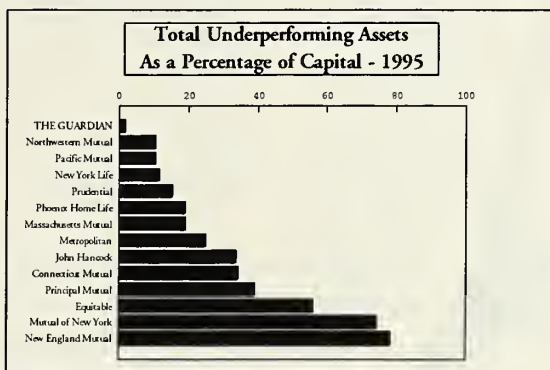


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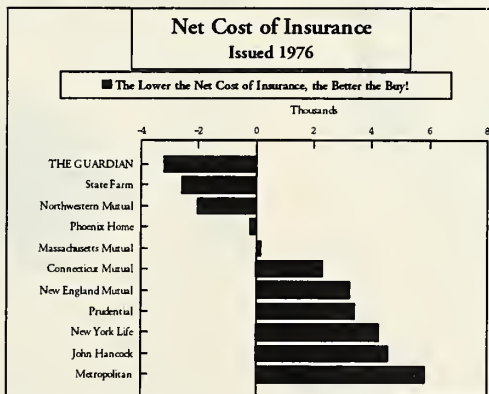
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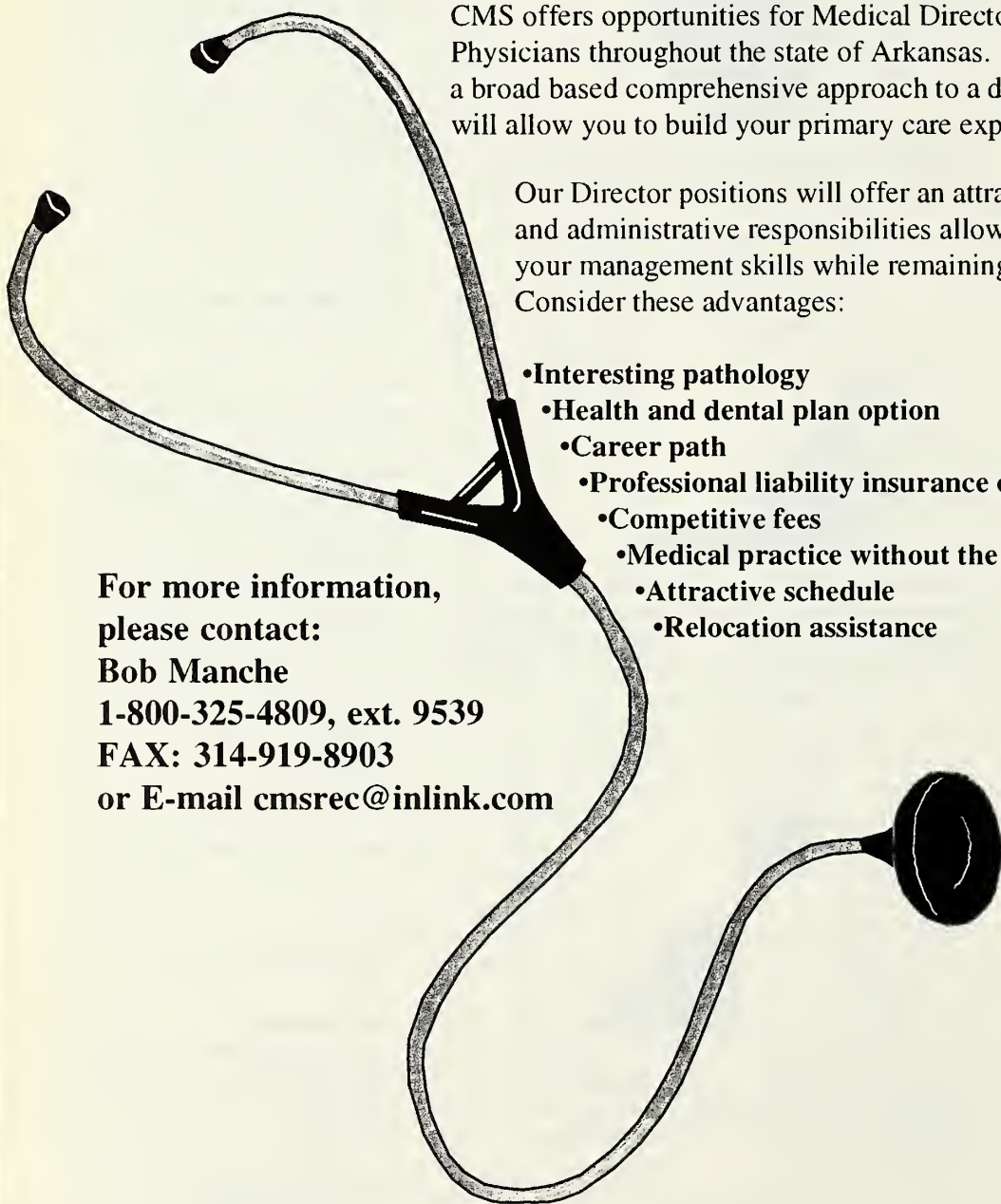
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The Approach to Treatment of Invasive Pneumococcal Disease in the 1990s

Katherine M. Knapp, M.D.*

Gordon E. Schutze, M.D.**

Abstract

Streptococcus pneumoniae is the most common cause of pediatric invasive infections and an important cause of morbidity and mortality. In the past, *S. pneumoniae* responded universally to penicillin until nonsusceptible isolates were first noted in the 1960s. Before 1990, penicillin-nonsusceptible isolates remained a minor component of all reported isolates. Since that time, 20-30% of isolates in many centers in the United States and up to 50% of isolates in some other countries are penicillin-nonsusceptible. Of greater concern has been the development of isolates which are nonsusceptible to more than one antimicrobial agent. This review presents data on pediatric invasive pneumococcal disease in Arkansas and outlines the new treatment recommendations which have been developed in response to these problems.

Streptococcus pneumoniae is an important pathogen worldwide and is considered the most common etiology of bacterial sinusitis, otitis media, pneumonia, meningitis and bacteremia. Before 1990, 95-96% of pneumococcal isolates were susceptible to penicillin. The first report of penicillin-nonsusceptible *S. pneumoniae* was made by Hansman and Bullen in 1967, who identified the strain in the sputum of a patient with hypogammaglobulinemia. Soon thereafter, penicillin-nonsusceptible pneumococci were reported in New Guinea and Australia as well.¹ Over the last several years, the incidence of penicillin-nonsusceptible isolates has greatly increased. Of particular concern is the concomitant increase in the number of organisms that are nonsusceptible to more than one antimicrobial agent.² Due to the development of such isolates, clinicians are having to approach patients with invasive disease due to pneumococci more cautiously.

In an attempt to clarify confusion with terminology, the Centers for Disease Control and Prevention (CDC) have recommended the same nomenclature be

used to classify resistance for all organisms: **nonsusceptible** organisms are those with an MIC (minimal inhibitory concentration) greater than or equal to that defined for the intermediate category of resistance and the term **resistant** should be reserved for those organisms with an MIC greater than or equal to that defined for the resistant category.² Therefore, resistant isolates are a subgroup of the nonsusceptible isolates.

Risk Factors

Risk factors for the development of invasive pneumococcal infections in the pediatric population have been well-described. Children at risk include those with congenital or acquired immunodeficiency, sickle cell disease or other hemoglobinopathies, asplenia, nephrotic syndrome, malignancies, as well as those who attend daycare or live in crowded environments. Important risk factors for the development of an infection with nonsusceptible isolates of *S. pneumoniae* are participation in daycare, increased number of otitis media treatment courses in the previous three months, and white race.^{3,4}

Mechanism of Resistance

Penicillin and cephalosporins kill pneumococci by irreversibly binding to proteins in the bacterial cell wall known as penicillin-binding proteins (PBPs). There are six PBPs that synthesize peptidoglycan for cell wall formation and modification. In penicillin-nonsusceptible organisms, there are alterations in the structure of the PBPs, which causes them to have decreased affinity for the antibiotic. Isolates that are nonsusceptible to penicillin require alterations in four PBPs, whereas those which are nonsusceptible to third generation cephalosporins (e.g., cefotaxime, ceftriaxone) need changes in only two of these proteins.³ Pneumococci have not been shown to produce beta-lactamase, thus there is no advantage in treatment with extended-spectrum antimicrobial agents which include beta-lactamase inhibitors (e.g. amoxicillin-clavulanate), as this will not overcome the

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Table 1:
Invasive pneumococcal isolates at Arkansas Children's Hospital, 1990-1996

N	Year	Pen I	Pen R	Total (%)	Cef I	Cef R	Total (%)
34	1990	-	-	2 (6%)*	-	-	-
34	1991	3	1	4 (12%)	-	-	-
30	1992	3	0	3 (10%)	-	-	-
32	1993	4	1	5(16%)	0	1	1 (3%)
49	1994	7	2	9 (18%)	4	2	6 (12%)
67	1995	7	3	10(15%)	1	1	2 (3%)
46	1996	11	0	11(24%)	2	1	3 (7%)

Pen = penicillin, Cef = cefotaxime, I = intermediate susceptibility, R = resistant

*Resistance suggested on basis on Kirby-Bauer results - MIC testing not done in 1990

decreased susceptibility caused by the changes in the penicillin binding proteins.

Epidemiology

Pneumococcal isolates which are nonsusceptible to penicillin can be found worldwide. The highest incidences of nonsusceptible pneumococci are in South Africa, South America, Spain, Eastern Europe, New Guinea, and Korea. Up to 50% of pneumococcal isolates are nonsusceptible to penicillin in some of these countries, and some experts suggest the same may be true of the United States by the year 2000. Approximately 80% of the pneumococcal isolates causing invasive disease in the United States are one of seven serotypes (serotypes 4, 6, 9, 14, 18, 19, 23) which are included in the 23-valent polysaccharide vaccine.² The serotypes that are most often nonsusceptible to penicillin are among these most common serotypes (6, 9, 14, 19, 23). Serotype 23 has been associated with resistance to both penicillin and cephalosporin more often than other serotypes.³

The incidence of nonsusceptible isolates is higher in specimens from nasopharyngeal and tympanocentesis specimens than from patients with invasive disease.¹ Studies have shown a correlation between isolates obtained from the throat or nasopharynx and those obtained from normally sterile sites, suggesting a correlation between carriage and development of invasive pneumococcal disease.⁵ A recent study in Memphis found 47% of children with upper respiratory tract infections were carriers of pneumococci. Of these isolates, 59% were nonsusceptible to at least one class of antimicrobial agent. Penicillin nonsusceptibility was demonstrated in 40% of isolates with 20% being fully resistant to penicillin. All of the of isolates which were nonsusceptible to cefotaxime (20%) also demonstrated nonsusceptibility to penicillin. Ten percent of the isolates were fully resistant to both penicillin and cephalosporins, while 44% were nonsusceptible to at least classes of antimicrobial agents.⁴

Before 1990, there were no cases of invasive disease described with penicillin-nonsusceptible isolates at Arkansas Children's Hospital. In that year, of 34 invasive isolates, 2 were suggested to be nonsusceptible based on Kirby-Bauer disk diffusion results (MIC testing was not done before 1991.) Over the next three years, the total number of invasive pneumococcal isolates remained relatively stable, with increasing

incidence of pneumococcal nonsusceptibility (Table 1). Over the past three years, we have seen an increase in total numbers of both nonsusceptible pneumococcal isolates and invasive pneumococcal isolates in general. Since 1993, we have also isolated pneumococci nonsusceptible to cephalosporins, with incidences ranging from 3-12%. In 1996, the percentage of pneumococcal isolates at our institution that were nonsusceptible to penicillin was 24%, representing a four-fold increase since 1990.

Treatment

Occult Bacteremia

Occult bacteremia with pneumococci usually resolves spontaneously or with the aid of any oral penicillin or cephalosporin. Concern that the patient's bacteremia may have spread to a secondary site should not be overlooked, but this is true regardless of the susceptibility of the organism. Patients whose blood cultures are positive for nonsusceptible isolates should be re-evaluated by a physician. Some authorities recommend repeating a blood culture and performing a lumbar puncture if the patient is not completely asymptomatic at follow-up. Asymptomatic patients can be managed with oral antimicrobials on an outpatient basis but symptomatic patients should be admitted to the hospital and have intravenous therapy started with cefotaxime or ceftriaxone until further information is obtained.³

Sepsis/Pneumonia

Penicillin remains the antimicrobial agent of choice against *S. pneumoniae*, and any isolate demonstrated to be penicillin susceptible should be treated with this agent. Patients with sepsis or pneumonia whose isolates are penicillin nonsusceptible should respond to treatment with high dose penicillin or ampicillin (Table 2). These medications can still be used because the concentrations of these antimicrobial agents achieved

in the serum with these doses will usually greatly exceed the MIC of the organism. If the isolate is fully resistant to penicillin or nonsusceptible to the cephalosporins, the treatment of choice remains cefotaxime or ceftriaxone because of the achievable serum levels (Table 2). In such a situation if there is not a rapid clinical response to these antimicrobial agents, vancomycin therapy should be initiated.³ Immunocompromised patients may be at risk for the development of infections with nonsusceptible isolates of pneumococci because they often receive courses of antimicrobial therapy. In such cases, vancomycin may be indicated empirically in an immunocompromised child who is critically ill.⁶ Subsequent therapy however, should be based upon the antimicrobial susceptibility pattern of the isolate.

Septic Arthritis and Osteomyelitis

Streptococcus pneumoniae is considered to be an uncommon cause of pyogenic arthritis and a rare cause of bacterial osteomyelitis. Clinical experience with septic arthritis and osteomyelitis due to nonsusceptible *S. pneumoniae* has been too limited to establish guidelines for therapy.⁷ The recent increase in nonsusceptible isolates to penicillin and cephalosporins however, makes it important to identify alternative antimicrobial agents for the treatment of such infections. Although animal studies have shown good vancomycin concentrations in infected bone, experimental studies have not been promising. It has been demonstrated that vancomycin does not kill organisms well under anaerobic conditions, and has been theorized that the

low oxygen tension in infected bone inhibits vancomycin. Other animal studies have suggested a possible beneficial role of a vancomycin-rifampin combination in such situations. Rifampin has been shown to be effective in killing organisms and to have prolonged bone concentrations in experimental models but should not be used alone because of the rapid emergence of resistant isolates. In combination with vancomycin or other antimicrobial agents however, it may play an important role. Clindamycin and imipenem/meropenem are other antimicrobial agents which may play a role in dealing with nonsusceptible isolates.⁷ A consultation with an expert in the field may be warranted if such an infection occurs until some guidelines for therapy can be established.

Meningitis

The estimated incidence of pneumococcal meningitis is 1 - 2 / 100,000. The American Academy of Pediatrics Committee on Infectious Diseases recommends starting presumptive therapy for children greater than one month of age with presumed bacterial meningitis with vancomycin and a cephalosporin (e.g., cefotaxime or ceftriaxone), unless there is strong evidence of infection with a bacterium other than *S. pneumoniae* (Table 2). Rifampin may be used as an alternative to vancomycin. It is important to tailor drug therapy once susceptibilities are known. If it is determined that the isolate is penicillin-susceptible, the antimicrobial agent of choice remains penicillin alone. If the isolate is nonsusceptible to penicillin, but susceptible to cephalosporins, administer cefotaxime or ceftriaxone alone.

Table 2:
Antimicrobial dosing for invasive pneumococcal infections for children*

Infections Outside the CNS			Meningitis	
	Dose (kg/day)	Interval (hr)	Dose (per kg/day)	Interval (hr)
Ampicillin	150 - 240 mg	6	240 - 300 mg	same
Cefotaxime	150 - 225 mg	6 - 8	225 - 300 mg	same
Ceftriaxone	80- 100 mg	12-24	100 - 150mg	same
Chloramphenicol#	75 - 100 mg	6	same	same
Clindamycin#	25-40 mg	6-8	** not indicated **	
Imipenem-cilastatin	60 mg	6	** not indicated **	
Meropenem\$	60 mg	8	120 mg	same
Penicillin G	250,000 - 400,000 units	4 - 6	same	same
Rifampin+	** not indicated **		20 mg	12
Vancomycin	40 - 60 mg	6	60 mg	same

* Data adapted from reference 6 for children > one month of age

Should be considered only for those with life-threatening allergic reactions to beta-lactam antibiotics

\$ FDA (Food and Drug Administration) approval only for intra-abdominal infections and bacterial meningitis in children greater than three months of age.

+ Indications not fully defined per AAP Committee on Infectious Diseases.

For organisms that are nonsusceptible to both classes of antibiotics, it is now recommended to use vancomycin or rifampin PLUS cefotaxime or ceftriaxone for the entire course of therapy.⁶

The effectiveness of dexamethasone therapy in preventing sequelae in pneumococcal meningitis continues to be controversial. Expert opinion continues to be divided on this topic since no large, single prospective controlled study has been done in this illness. Although data from rabbit models have suggested that dexamethasone impedes vancomycin and ceftriaxone penetration into the central nervous system, the penetration of these antimicrobial agents into the central nervous system of children in such situations appears to be much better.⁸ Dexamethasone therapy can also decrease fever giving the clinician a false sense of clinical improvement even though the cerebrospinal fluid may not be sterilized. If dexamethasone is administered, careful and frequent observation of the patient is required.

A repeat lumbar puncture should be considered 24 - 48 hours into therapy in the following instances: 1) if the isolate is nonsusceptible to penicillin or to the cephalosporins 2) if there has been no clinical improvement 3) if the child received dexamethasone therapy as this could interfere with assessment of clinical response.⁶ If the repeat lumbar puncture does not demonstrate a significant reduction in the number of organisms, or if the patient does not show clinical improvement with the vancomycin/cephalosporin combination, the addition of rifampin or the substitution of rifampin for vancomycin could be considered if the organism is susceptible.⁶

Prevention

In order to curb the current trend in antimicrobial resistance, clinicians will need to change the way they approach treatment of infections. Physicians should attempt to limit their use of antimicrobials to those conditions for which they are clearly indicated, use shorter courses of antibiotics (e.g. treating otitis media for five days), and tailor treatment regimens depending on the disease process. These simple goals are not easy to implement without the education about the dangers of antimicrobial overuse with patients and their families. For example, in the study referred to earlier evaluating patients for the carriage of nonsusceptible pneumococci, 59% of the children diagnosed with URI without otitis media received a pre-

scription for antimicrobials, and one-third of these patients were felt to have symptoms suggesting uncomplicated URI or asthma, indicating little likelihood of a bacterial infection.⁶

The currently-available 23-valent polysaccharide vaccine is not efficacious in children less than two years of age, but is recommended for older children at risk for development of invasive pneumococcal infections. Researchers have developed and are currently testing multivalent conjugate pneumococcal vaccines that are immunogenic in younger children.⁹ Based on data from the Pneumococcal Surveillance System, the CDC projects that a conjugate heptavalent vaccine against the seven most common serotypes in young children would protect against 74% of the penicillin-nonsusceptible and 100% of the penicillin-resistant pneumococcal infections.² By the year 2000, it is possible that we may have pneumococcal conjugate vaccines to include in the routine childhood immunization programs.

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Hindsight - 20/20

J. Kelley Avery, M.D.*

Case Report

A 23-year-old gravida 2, para 1 came to the emergency department of her local medical center hospital at 37 weeks' gestation after an uneventful prenatal course. Uterine contractions had begun about an hour earlier. She was in no distress, her blood pressure was slightly elevated with a diastolic of 98 mm Hg, the fetal heart tones were heard best in the right lower quadrant at a rate of 140, and there was some bloody show. Her contractions were irregular but were of good quality. The cervix was said to be 2 cm dilated and the bag of water was intact. There were no significant risk factors. She was admitted to the labor and delivery area for further evaluation prior to actual admission.

The external fetal monitor (EFM) was placed, and the nurse observed late decelerations on the first tracing; the physician was notified. One hour after admission the nurse again noted late decelerations, and again notified the physician. Oxygen was started and the patient was turned on her side.

Two hours after admission, the attending physician placed a scalp electrode, and the tracing continued to exhibit variable and late decelerations. Two hours after placement of the scalp electrode, the nurses reported a decreased variability to the physician. Cesarean section was discussed with the patient, and she was prepared for the operation. About six hours after admission the patient was delivered by cesarean section of an 8-lb baby in profound distress. The infant was sent to the neonatal intensive care unit in another city, where he died after two months on the respirator.

Within a few months, a lawsuit was filed charging

the physician with the wrongful death of the infant due to a delay in performing the cesarean section.

Loss Prevention Comments

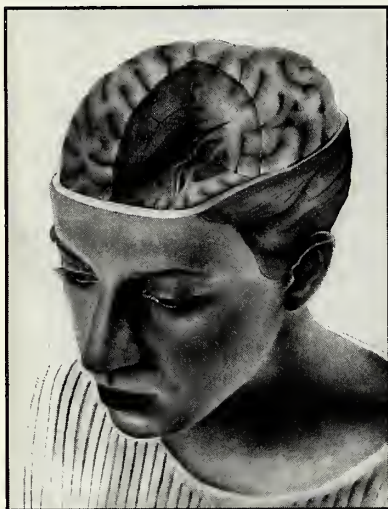
The mother was healthy, and the physician was one of the most respected in the community. The outcome of her second pregnancy was tragic. The expenses were enormous, especially in view of the two months on the respirator with "flat" EEGs.

In retrospect, would the result have been better if an emergency cesarean section had been done? There were indeed well-documented late decelerations on admission to the labor and delivery suite. These continued throughout the labor. There was some waxing and waning of the decelerations, but they never quite went away. After the scalp electrode was applied, the variability was in question, with the nurses consistently feeling that there was a loss of normal variability and the physician reporting on one occasion that the "variability" seemed to be improving. If a cesarean section had been done on admission, and if the infant had been severely compromised, there would have been no question that the intrauterine accident occurred prior to the time when any intervention could have made any difference. As it happened, however, our physician had to deliver a healthy baby of face the charge of negligence.

While the EFM tracings were not "abnormal" enough to prompt our obstetrician to do an emergency section, the experts on both sides of the case believed cesarean section was indicated. The experts of the plaintiff contended that the section was demanded, while the defendant experts believed that it was indicated but that the obstetrician made a judgment that was within an acceptable standard of care.

This was by no means an "open and shut" case for the plaintiff, but given the circumstances, a "modest" five-figure settlement was negotiated.

* Dr. Avery is Chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Co., Brentwood, TN. This article appeared in the January 1994 issue of the Journal of the Tennessee Medical Association. It is reprinted here with permission.



self portrait by Cynthia Clarke

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*UAMS full time biomedical graphic artist, 1994-1995

*University of Rochester School of Medicine, human gross anatomy lecture and full cadaver dissection, 1996-1997

*Strong Memorial Hospital, observation and illustration of surgical procedures, 1996-1997

*Rochester Institute of Technology, graduate assistant and instructor, 1996-1997.

Her publication work includes cover illustrations for *The Journal of the Arkansas Medical Society*, November 1997; two illustrations demonstrating the proper method for tick removal in *Seminars in Pediatric Infectious Diseases*, April 1994; and an illustration demonstrating how asthma is triggered in the classroom in *Pediatric Nursing*, March 1994.

If you need a medical illustrator,

call Cynthia Clarke at 501-821-3553 or contact Tina Wade at the AMS office at 501-224-8967.

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Vito Calandro, M.D.*
Hemendra R. Shah, M.D.**
J. David Talley, M.D.*

Acute Aortic Dissection

An acute aortic dissection is a catastrophic event with two thousand new cases diagnosed per year in the United States. Aortic dissection is due to a tear in the intima of the aortic wall causing a column of blood to enter the aortic wall. We report a patient who presented and eventually succumbed from this condition.

Patient Report

A 68-year-old male with a history of peptic ulcer disease presented with severe chest pain (see Table 1, Complete Problem List). The pain was crushing and radiated to the neck and upper back. In the Emergency Department, the blood pressure was 110/92 and the ECG was normal. The pain was initially relieved with the administration of sublingual nitroglycerin and intravenous morphine.

At the time of presentation, the patient was a well-developed, well-nourished male in moderate distress. The pulmonary and cardiac examinations were

Table 1

Complete Problem List

1. Chest discomfort of uncertain etiology→
2. History of peptic ulcer disease
 - a. Prior surgical correction

normal. The pulses were initially normal. The remainder of the exam was normal.

The initial CK was 55 U/L (normal 30-260 U/L). The chest x-ray showed widened mediastinum (Fig. 1).

Immediately after ordering a CT of the chest and abdomen, the patient acutely developed a change in the examination of the arterial pulses; the right radial pulses was barely palpable and the right popliteal pulse was absent. The patient became unresponsive to verbal stimulation, but was able to move the right lower extremity with physical stimulation. A CT scan showed

aortic dissection extending below innominate artery to immediately proximal to the renal arteries (Figures 2 & 3). The patient was felt to have a catastrophic type 1 aortic dissection with profound neurological changes. He was placed on nitroglycerin infusion for blood pressure control. Approximately one hour after admission, the patient became progressively hypotensive refractory to vasopressor support. Resuscitative efforts were not successful.

Discussion

Classification. The pathophysiologic manifestations of aortic dissection are determined by the path of progression through the aorta. Mechanical and hemodynamic compromise may be secondary to the dissection shaving off major arteries arising from the aorta, disruption of the aortic valve, and rupture through the adventitia. The DeBakey classification recognizes three groups: *Type I* extends beyond the ascending aorta and arch, *Type II* is confined to the ascending aorta, and *Type III* originates in the descending thoracic aorta and extends distally.¹ In *Type IIIa* dissection, the process is limited to the thoracic aorta, while a *Type IIIb* designation denotes extension of the dissection below the diaphragm. Proximal dissections (DeBakey Types I & II) occur more frequently than distal dissections (DeBakey Type III).

Etiology and Diagnosis. Degeneration of the aortic media (both collagen and elastic tissue) is believed to initiate the development of aortic dissection. This process is often due to chronic stress against the aortic wall, such as that which occurs with systemic arterial hypertension.² The diagnosis can often be made from the physical exam.³ The blood pressure is frequently elevated. Pulse deficits, aortic valve insufficiency, and neurologic manifestations, including a stroke, peripheral neuropathy, and change of consciousness are characteristic of proximal dissection. Chest x-ray usually reveals an abnormal widened aortic contour. Ultrasound,

* Drs. Calandro and Talley are with the Division of Cardiology, Department of Internal Medicine at UAMS.

** Dr. Shah is head of Body CT and MRI with the Department of Radiology at UAMS.

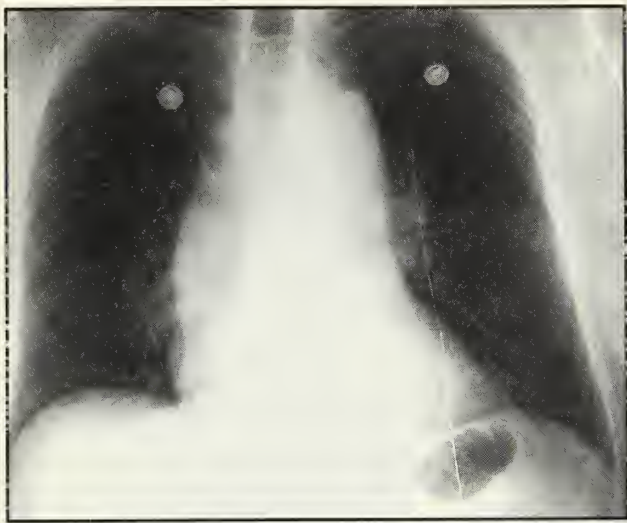


Figure 1: Chest x-ray, anterior-posterior projection, showing a widened mediastinum which is due to prominence of the ascending aorta.

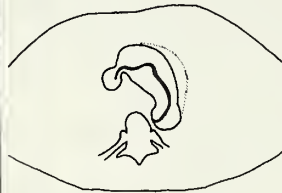
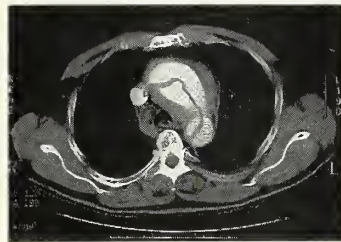


Figure 2: CT scan with contrast at the level of the aortic arch showing an intimal flap which extends from the ascending (anterior structure) to the descending (posterior and to the right) aorta. There is also a pericardial effusion.

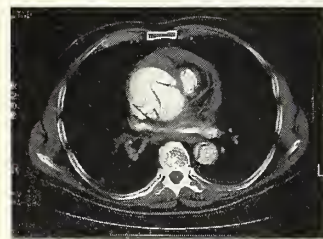


Figure 3: CT scan with contrast at the level of the mid-ascending and thoracic aorta showing an intimal flap which extends proximally to distally. The ascending aorta is markedly dilated. There is also a pericardial effusion.

CT, and MRI offer the advantage of non-invasive diagnosis and rival angiography in accuracy.⁴

Management. Therapy of aortic dissection is aimed at halting the progression of the dissecting hematoma.⁵ Surgery is the treatment of choice for acute proximal dissection. Surgery is also the treatment for acute distal dissection if complicated by progression with vital organ compromise, aortic rupture, retrograde extension into the ascending aorta, or in Marfan's syndrome. The treatment of choice for uncomplicated distal dissection or stable, isolated arch dissection is medical management. In our patient's case, he was felt to be at prohibitive risk for operative intervention given his neurologic changes and metabolic acidosis.

References

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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Rabies in Arkansas

Rabies in Arkansas

Rabies is a neurotropic viral disease which affects all furbearing, warm-blooded animals. Clinically, rabies is a rapidly progressive, fatal encephalitis without regression or improvement. Once symptoms develop, the mortality rate is 100%.

The virus may be transmitted to man by the bite of a rabid animal. Non-bite exposures also occur when saliva, cerebrospinal fluid or brain tissue from a rabid animal or person contacts mucous membranes, wounds, cuts or scratches. Saliva from a rabid animal on intact skin is not an exposure. Sweat, tears, breast milk, blood, urine and feces are not considered to be infectious. There have been two documented human deaths from aerosol transmission. These occurred in the Frio Caves in Texas in the 1950s where two federal employees died of rabies after working in the bat-inhabited caves. They had no history of an animal bite. Subsequently, caged wild and domestic animals protected by fine mesh were placed in the caves. These test animals also became rabid, confirming aerosol transmission. In addition, there have been at least six human deaths due to corneal transplants: 2 in India, 2 in Thailand, 1 in the United States and 1 in France. Most of the donors were thought to have died of Guillain-Barre Syndrome.

Animal rabies has a variable incubation period which usually ranges from 3-8 weeks, but may be as short as 10 days in instances of severe head or face bites. Rarely, the incubation period may be as long as a year.

Animals affected by rabies usually die within three to five days of recognition of symptoms. Animals with encephalitis symptoms lasting a week or two with a period of improvement followed by relapse probably have botulism, aflatoxicosis, listeriosis or in the case of small animals-distemper encephalitis.

Historical records show that in 1940, five people died of rabies in Arkansas. During that same year, 160 rabid animals were reported: 148 dogs, four cats, two cows and one goat. In 1960, 115 foxes, 106 cattle, 78 dogs, eight cats, six horses, two bobcats, two skunks, one goat, one hog and one wolf were reported as rabid. An effective animal rabies vaccine was developed in the 1950s, and the incidence of canine rabies in the United States dropped from approximately 5,000 cases a year to the current average of 150 cases a year.

Ninety percent of the rabies in Arkansas is in wildlife. Skunks are the predominant rabid animal with bats second. (See table 1 for 1997 statistics.) Skunks are nocturnal animals and about 95% of skunks abroad in the daytime will test positive for rabies. Rabid skunks are unusually aggressive and will attack anything that moves, including dogs, cats and humans.

Bat rabies occurs in all of the states except Hawaii. Between 10 and 15% of bats tested in the Arkansas Department of Health (ADH) laboratory are positive. When rabid, they become disoriented and may fly into a person and bite before dropping off. They frequently land in swimming pools or collide with buildings and often are picked up by cats or children. The most common bats in Arkansas are the Red Bat and the Big Brown Bat. The Silver Haired Bat is the species most often found to be rabid, but is not as numerous as the other species.

Bat-related virus variants have been identified from 17 (53%) of the 32 cases of human rabies diagnosed in the United States since 1980. Of these cases, 12 (71%) were infected with a rabies virus variant primarily associated with the silver-haired bat. A definite bite history could be obtained in only one of these 17 bat-related cases. In eight of these instances, although contact with a bat was reported by the patient, a family member, or friends, there was no bite recognized or wound evident. These findings suggest that limited or seemingly insignificant physical contact with rabid bats may result in transmission of the virus. Therefore, rabies post-exposure prophylaxis (PEP) should be considered in all situations in which there is a reasonable possibility that contact with a bat may have occurred, unless prompt laboratory testing of the bat has ruled out rabies infection. Examples of potential contacts include a sleeping person who awakes to find a bat in the room, or a bat found in the room with a previously unattended child or intoxicated person. Adherence to this recommendation and guidelines from the Advisory Committee for Immunization Practices should maximize a health provider's ability to respond to situations in which there is difficulty in obtaining accurate exposure histories, while still minimizing the inappropriate administration of PEP. Persons with other exposures, including animal bites or scratches or mucous membrane contact with potentially infectious material, should continue to be considered for PEP.

Bat rabies is enzootic in the contiguous United States, but reduction of bat populations is not a feasible or desirable strategy for rabies control in bats. Human and domestic animal contact with bats should be minimized by physical exclusion of bats from houses and surrounding structures by sealing entrances used by bats. Bats should not be routinely captured or handled and should never be kept as pets. In addition, rabies vaccination should be kept current for all dogs and cats to provide a barrier to indirect human exposures to wildlife rabies through domestic animals.

Raccoons and opossums are rarely rabid. About 80 of each are tested annually by the ADH and no rabid opossums have been identified, but we have had two rabid raccoons in the last 20 years. In the Northeast and Southeast areas of the United States the raccoon is the predominant rabid animal. The raccoon strain of rabies virus is very contagious among raccoons, but this virus variant is not present in Arkansas. The two rabid raccoons documented in Arkansas were identified as having the skunk virus. Arkansas Game and Fish Commission laws do not allow the importation of raccoons into the state.

Rodents, including squirrels, rats and mice, have never been found to be rabid. It is estimated that there are at least 30,000 humans bitten by rodents annually in the United States, but there has never been a human rabies case in the United States from a rodent bite.

Animal bites are reportable to the state or county health departments. The Rabies Control Act (Act 11 of 1975) requires that dogs and cats that have bitten a person be quarantined for a ten-day period to insure that they do not have rabies. Rabid dogs and cats usually die within four to five days and surely within 10 days, therefore, an offending animal that lives 10 days from the date of the bite did not have rabies at the time of the biting incident.

As an alternative to quarantine, any offending animal may be sacrificed and the head submitted to the ADH for rabies testing. Wild animals that have bitten a person are considered rabid unless proven otherwise by testing. A negative fluorescent stain of brain tissue is evidence that the animal is not rabid. Heads to be tested should be kept chilled in a refrigerator or by packing in ice to prevent decomposition. Veterinarians and all county health units have insulated shipping containers and cold packs for sending rabies suspect heads to the ADH by United Parcel or Federal Express. It is illegal to send a head through the mail. Testing is conducted free of charge daily at the ADH Laboratory.

In instances where the animal is not available for quarantine or testing, the ACIP treatment guidelines are followed. The decision to treat or not to treat is a perplexing one for physicians. The following factors are considered: 1- Was the bite provoked or unprovoked? 2- Was the dog or cat vaccinated? 3- What did the animal do after the bite? Running away is a good sign, because it means that the animal can think and

does not have advanced encephalitis. 4- What is the incidence of rabies in that species in that locality?

The ADH Public Health Veterinarian should be contacted for consultation on the necessity for PEP and to secure the human rabies vaccine, which is available at cost from the health department. United Parcel shipment will be made to the requesting physician as needed. United Parcel guarantees delivery by the following day, Monday through Thursday. Treatment should start as soon as possible after the exposure but should be given if indicated, regardless of the time lag after the exposure. About 20,000 people receive PEP each year in the United States; in Arkansas, about 160 people are treated annually.

PEP consists of five 1ml injections of Human Diploid Cell Vaccine (HDCV) in the deltoid muscle, on days 0, 3, 7, 14 and 28. Human Rabies Immune Globulin (HRIG) is administered at the rate of 2ml per 33 pounds of body weight. On day zero, the first day of treatment, up to half of the HRIG is injected around the wound if possible, and the remainder administered in the gluteal muscles of the buttocks. If a person has had pre-exposure immunization, only two 1ml doses of HDCV are given, three days apart.

Pre-exposure immunization is given intradermally using 0.1 ml HDCV; alternatively, 1 ml of HDCV may be given IM. Three injections are given, on days 0, 7 and 28. Booster doses are given every two years. This series will result in protective antibody titers and should be taken by veterinarians, animal control workers, forest workers and by persons going to a foreign country where there is a risk of rabies exposure.

Table 1: YTD Positive Animal Rabies Tests by the ADH labs (as of September 20, 1997)

County	Bat	Cat	Dog	Fox	Skunk	Total
Baxter	0	0	1	0	2	3
Benton	0	1	0	0	10	11
Boone	2	0	0	0	0	2
Carroll	0	0	1	0	0	1
Fulton	0	0	2	0	1	3
Garland	1	0	0	0	0	1
Greene	1	0	0	0	0	1
Howard	0	0	0	0	1	1
Jefferson	1	0	0	0	0	1
Lawrence	0	0	0	0	1	1
Logan	1	0	0	0	3	4
Madison	0	1	0	1	2	4
Miller	1	0	0	0	1	2
Newton	0	0	0	0	1	1
Pike	0	0	0	0	1	1
Polk	1	0	0	0	0	1
Pulaski	1	0	0	0	0	1
Saline	1	0	0	0	0	1
Scott	0	0	0	0	2	2
Sebastian	0	1	0	0	0	1
Washington	0	0	0	0	1	1
Total	10	3	4	1	26	44

Reported Cases of Selected Diseases in Arkansas Profile for August 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	116	165	241	103	153
Giardiasis	144	99	182	81	131
Shigellosis	154	88	176	86	176
Salmonellosis	267	284	455	200	338
Hepatitis A	178	332	500	398	663
Hepatitis B	40	65	93	50	83
Hepatitis C	0	7	7	NR	NR
HIB	0	0	0	1	1
Meningococcal Infections	24	28	35	26	39
Viral Meningitis	14	25	38	29	33
Ehrlichiosis	21	6	7	12	14
Lyme Disease	15	25	27	9	12
Rocky Mountain Spotted Fever	19	17	22	26	31
Tularemia	18	20	24	19	22
Measles	0	0	0	2	2
Mumps	1	1	1	6	6
Gonorrhea	*****	*****	5050	*****	5437
Syphilis	*****	*****	706	*****	1017
Legionellosis	0	1	1	5	8
Pertussis	21	6	14	53	59
Tuberculosis	123	126	225	147	271

NR Not reportable

STD data not currently available.

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

The 1997 Arkansas Medical Society Membership Directories are now available. **All physician-members should have already received one copy through the mail at no charge.** To order extra copies, or if you are not an AMS member and would like your own copy of the 1997 AMS Membership Directory, send a check or money order made payable to AMS in the amount of your purchase to: AMS, 1997 Membership Directory, P.O. Box 55088, Little Rock, AR 72215-5088. Be sure to include the name and address of who and where to mail your directory. The directories are \$50 each. With a purchase of 2 to 10, \$45 each; 11 or more, \$35 each.

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In Memoriam

John L. Ruff, M.D.

Dr. John L. Ruff of Magnolia died Saturday, September 20, 1997. He was 84. He was preceded in death in 1951 by his first wife, Ruby Allen Ruff, his parents, two brothers and a sister. His is survived by his wife, Mildred Greer Epley Ruff; one son, John Allen Ruff of Springfield, Missouri; a daughter, Marilyn Erwin of Little Rock; two stepsons, Arthur Epley of Houston and Michael G. Epley of Magnolia; and a stepdaughter, Jane Kratzig of Corpus Christi; six grandchildren, nine step-grandchildren and one step-great-grandchild.

Ross Fowler, M.D.

Dr. Ross Fowler of Harrison died Thursday, September 11, 1997. He was president of the Arkansas Medical Society during 1969-1970. An article, written by Larry Ault, from the *Arkansas Democrat Gazette* is reprinted here with permission.

Traveled rural roads, delivered 5,000 babies

Dr. Ross Fowler, past president of the Arkansas Medical Society, made house calls for many years, delivering babies and traveling late at night on rocky roads that were so bad he'd often be met by someone with a horse or mule to take him the rest of the trip.

"Any time the creek was up, they'd meet him with a horse," recalled his wife of almost 60 years, Jacquelyn Mallioux Fowler. "Sometimes it got to where there wasn't any road at all."

Fowler, who died Thursday (September 11, 1997) of diabetes at the North Arkansas Regional Medical Center, was proud that he had delivered more than 5,000 babies in the 55 years he practiced medicine in Boone County before retiring in 1990, his wife said.

For his services, Fowler was paid in all kinds of ways, especially during the Great Depression.

"You got a lot of chickens, a load of wood or sweet potatoes," his wife said. "People paid the doctor with what they had."

He was known as "Dr. Ross" by his patients, who honored him with a Dr. Fowler Appreciation Day on Dec. 9, 1990, after he retired.

Fowler, a descendant of Boone County pioneers, was born Sept. 4, 1910, at Gaither near Harrison, the son of Tilden Paul and Mittie Jane Rowan Fowler.

The family lived in Gaither during Ross' early life, then moved to Harrison, where he attended public school. Fowler graduated from Harrison High School and the University of Arkansas at Fayetteville.

He and his brother, Dr. Marvin Fowler, who practices in West Plains, Mo., followed their father and two uncles

into the medical profession. Their father and an uncle, Dr. Jim Fowler, practiced in Harrison. Another uncle, Dr. Alonzo Fowler, was a doctor in Fayetteville.

Fowler received his medical degree from Tulane University in New Orleans and interned at Fresno General Hospital in California.

He met his wife at an Armistice Day dance at the American Legion Hut on Nov. 11, 1936. They were married March 11, 1938.

Fowler was a charter member of the American Academy of Family Practice Physicians, past president and a member of the board of the Arkansas Medical Society and a member and past chairman of the Arkansas Medical Examining Board. He was chairman and a board member of the North Arkansas Regional Medical Center.

Mrs. Fowler said, her husband was a big Razorback fan and like to hunt and fish.

"Quail hunting was his special hobby, and he always kept a bird dog," Mrs. Fowler said. "I cleaned the quail, but I would not clean the fish."



New Members

HARRISON

Moffett, Shirolyn Ruth, Family Practice. Medical Education, UAMS, 1994. Internship/Residency, UAMS-AHEC, 1995/1997. Board certified.

JONESBORO

Day, Thomas Elkins, Orthopedic Surgery. Medical Education, Vanderbilt University School of Medicine, Nashville, Tennessee, 1991. Internship/Residency, Vanderbilt University School of Medicine, Nashville, Tennessee, 1993/1997.

Hornbeck, Robert Glenn, Pediatrics. Medical Education, Bowman Gray School of Medicine of Wake Forest University, Winston-Salem, North Carolina, 1985. Internship, UAMS, 1986. Residency, Arkansas Children's Hospital, 1988. Board certified.

Monte, Marc P., Hematology/Oncology. Medical Education, Univ. De Montreal, Faculty De Med., Montreal, Quebec, Canada, 1969. Internship/Residency, St. Luc Hospital, Montreal, Canada, 1970/1974.

LITTLE ROCK

Gellman, Harris, Orthopedic Surgery. Medical Education, Temple University School of Medicine, Philadelphia, Pennsylvania, 1979. Internship/Residency, Hospital University of Pennsylvania, 1980/1984. Board certified.

Simmons, Debra Lynn, Internal Medicine/Endocrinology and Metabolism. Medical Education, Southwestern Medical School, Dallas, Texas, 1982. Internship/Residency, Indiana University Medical Center, 1983/1985. Board certified.

MOUNTAIN HOME

Herrman, Joanne, Obstetrics/Gynecology. Medical Education, University of Pittsburgh School of Medicine, Pennsylvania, 1979. Residency, George Washington University, Washington, D.C., 1983. Board certified.

Newton, James Camp, Anesthesiology. Medical Education, UAMS. Residency, UAMS, 1997.

PARAGOULD

Ilyas, Mohammad, Pediatrics. Medical Education, Rawalindi Medical College, Pakistan, 1985. Internship, Holy Family Hospital, Pakistan, 1986. Residency, University of Tennessee, Memphis, 1994. Board certified.

PINE BLUFF

Jurkovich, David, Cardiology. Medical Education, University of Texas Southwestern Medical School, Dallas, 1990. Residency, University of Iowa, 1993. Fellowship, University of Miami, 1997. Board certified.

RUSSELLVILLE

Hubach, Cindy Ann, Obstetrics/Gynecology. Medical Education, UAMS, 1992. Residency, UAMS, 1997.

VAN BUREN

Thompson, Robert C., Orthopedics. Medical Education, Johns Hopkins University, Baltimore, Maryland, 1964. Internship/Residency, Union Memorial, Baltimore, Maryland, 1965/1966. Board certified.

WALNUT RIDGE

Lancaster, Shawn C., Family Practice. Medical Education, UAMS, 1994. Internship/Residency, UAMS, 1997. Board pending.

WEST MEMPHIS

Shah, Ayesha S., Pediatrics. Medical Education, Aga Khan Medical College, Aga Khan University, Karachi, Pakistan, 1990. Internship, Aga Khan University, Pakistan, 1991. Residency, University of Tennessee, Memphis, 1995. Board certified.

RESIDENTS

McGraw, Lisa Kay, Family Practice. Medical Education, UAMS, 1996. Internship, AHEC-Northeast, 1997. Residency, AHEC-Northeast.

Raney, Jerel Lee, Emergency Medicine. Medical Education, Vanderbilt University School of Medicine, Nashville, Tennessee, 1995. Internship, UAMS, 1996. Residency, UAMS.

STUDENTS

Baltz, Alexander Joseph
Bell, Todd Edward
Bierbaum, Walter Frederick
Bishop (Condley), Michelle
Brown, David Pearce
Cash, Jodi L.
Davidson, Gretchen M.
Fletcher, Brent F.
Gustafson, Craig Allen
Harris, Bryson Carroll
Leslie, John Thomas
Moseley, Tommy H.
Nelson, Brett Aric
Payne, Michael D.
Ransom, Michelle M.
Schneider, Elizabeth Ann
Seme, Melissa D.
Ta, Huong Josephine
Theus, John William
Wassell, David Lynn
White, Faber Allen

Things To Come

December 13

14th Annual CME Clinical Update in Pulmonary Medicine. Trump World's Fair Casino, Atlantic City, New Jersey. Sponsored by the Department of Pulmonary Medicine, Deborah Heart & Lung Center. For more information, call 201-385-8080.

February 19-21, 1998

Cardiovascular Health: Coming Together for the 21st Century - A National Conference. Hyatt Regency Embarcadero Hotel, San Francisco, California. Sponsored by the National Heart, Lung, and Blood Institute; the Cardiovascular Disease Outreach, Resources, and Epidemiology Program; the University of California, San Francisco; and the California Cardiovascular Disease Prevention Coalition. For more information, call 415-476-5808.

February 21-23, 1998

13th Annual Mardi Gras Anesthesia Update in New Orleans. Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Department of Anesthesiology & Center for Continuing Education, Tulane University Medical Center. For more information, call 504-588-5466 or 1-800-588-5300.

February 22-27, 1998

Advances in Imaging: 1998. The Inn at Prospector Square, Park City, Utah. Sponsored by the Departments of Radiology at Tulane University Medical Center and Louisiana State University School of Medicine. For more information, call 504-588-5466 or 1-800-588-5300.

March 20-22, 1998

4th Annual Clinical Update on Management of the HIV-infected Patient - A Practical Approach for the Primary Care Practitioner. Crowne Plaza Hotel, New York, New York. Sponsored by the Center for Bio-Medical Communication, Inc, and the American Foundation of AIDS Research. For more information, call 201-385-8080.

March 26-29, 1998

National Kidney Foundation, Seventh Annual Spring Clinical Nephrology Meetings, Consultative Nephrology Program. Opryland Hotel, Nashville, Tennessee. Sponsored by the National Kidney Foundation. For more information, call 1-800-622-9010.

April 22-26, 1998

Critical Care Medicine 1998 - 12th Annual Review and Update. Crystal Gateway Marriott, Washington, DC. Endorsed by the Society of Critical Care Medicine and announced by the Center for Bio-Medical Communication, Inc. For more information, call 201-385-8080.

April 29 - May 2, 1998

International Conference on Physician Health. Victoria, British Columbia, Canada. Sponsored by the American Medical Association and the Canadian Medical Association. For more information, call 312-464-5073.

June 23, 1998 - July 5, 1998

12-Day Study Cruise on ms Rotterdam VI - Healthcare in the 21st Century. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored by the University at Sea Continuing Education, Inc. For more information, call 1-800-926-3775.

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Keeping Up

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided

Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided

Spring Sleep Seminar 1998, May 2 - 4, 1998, Arlington Resort Hotel and Spa, Hot Springs, Arkansas. For more information contact Bill Rivers, RPSGT at (501) 442-1272.

Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.

General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.

Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20

Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.

Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.

Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building

Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Video conference. Thursday, November 20, 1997. 12 noon to 1:30 p.m. Topic: Outcomes Data from Nine State Carotid Endarterectomy Project, Outcomes from the Arkansas Provider Heart Cath Project, ESRD - New Project Information, Update on the Arkansas Foundation for Medical Care's Role in the new Medicaid Managed Care Program. Location: UAMS education building/AHEC's and Rural Hospital Affiliates. For more information, call 501-649-8501, ext. 203.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium

Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building

Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom

Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium

Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom

Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom

Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.

Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
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VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Cardiology Conference, dates vary, 7:00 p.m., locations vary
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
Family Practice Conference, 1st & 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Geriatrics Conference, 4th Tuesday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Locations vary. Dinner meeting.
Tumor Conference, 1st Wednesday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
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Volume 94 Number 7

December 1997

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Cover photo, taken at Mt. Nebo State Park, was provided by the Arkansas Department of Parks & Tourism.

Health Care Access Foundation

As of November 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 13,243 medically indigent persons, received 25,293 applications and enrolled 49,268 persons. This program has 1,898 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Effective Stroke Prevention in Atrial Fibrillation Requires Close Laboratory Monitoring - INR Consensus Statement Introduction

At the Fourth American College of Chest Physicians Consensus Conference of Antithrombotic Therapy under the joint sponsorship of the National Heart, Lung and Blood Institutes in 1995, it was announced again that prothrombin time (PT) ratio is no longer a safe or adequate measurement for monitoring warfarin anticoagulant therapy. In conjunction with the World Health Organization, the American College of Chest Physician recommends worldwide use of an international normalized ratio (INR). The INR, a measurement system that determines the effects of anticoagulant therapy, represents a standardized value regardless of which PT system or thromboplastin source the laboratory uses to test the sample.

Long-term anticoagulation therapy is used widely in the United States for diseases of the cardiovascular system ranging from atrial fibrillation (AF) and deep vein thrombosis, with or without a pulmonary embolism, to abnormalities of cardiac structure and function. It is estimated that half a million Americans are undergoing anticoagulant therapy. The benefits and risks associated with anticoagulation are often guided by the patient's response to varying doses of medication. For this reason, careful monitoring of the extent of anticoagulation is necessary.

AF, seen in up to 9 percent of elderly people, can cause blood clots that travel to the brain and cause a stroke. In fact, AF causes 15 percent of all strokes in this country. Patients who have AF have a five-fold greater risk of stroke than patients without AF. Stroke is a common affliction of Medicare beneficiaries and the third leading cause of death in the United States. Stroke occurs at a rate of one per minute and is the leading cause of major disability. Stroke results in more than 500,000 hospitalizations, 150,000 deaths and 30 billion dollars in cost each year (*Heart and Stroke Facts, Statistical Supplement*, 1996).

According to a study "Risk Factors for Stroke and Efficacy of Antithrombotic Therapy in Atrial Fibrillation" (*Archives of Internal Medicine*, 1994, Vol. 154), the use of the anticoagulant drug, warfarin, reduced the annual rate of stroke from 5 to 1.6 percent among AF patients. Warfarin, however, requires careful monitoring by both the physician and the patient. Effective use of warfarin to prevent stroke requires titration to achieve an INR level between 2.0 and 3.0. This range offers enough anticoagulation to prevent stroke, but does not over anticoagulate patients and put them at risk for bleeding complications.

To prevent stroke in Medicare beneficiaries with AF, nine Quality Improvement Organizations (QIOs - also known as Peer Review Organizations), from states in an area commonly called the stroke belt endorse the use of the INR to measure prothrombin time for patients on warfarin. The nine QIOs recommend that patients receive prothrombin times every four to six weeks and that patients and physicians be familiar with target INR levels of prothrombin time to achieve safe and effective anticoagulation required to prevent stroke.

Currently, these nine QIOs are involved in a public awareness campaign on stroke called Making Advances in the Prevention of Stroke (MAPS) directed at Medicare beneficiaries. The program, also includes a clinical component to encourage providers to focus on improving patient education for a high-risk patient group, specifically patients with AF. Funding for the Health Care Quality Improvement Program and MAPS is provided by the Health Care Financing Administration (HCFA).

Principal Clinical Coordinators (who are physicians) from the nine QIOs endorsed the project in their state and participated in developing the consensus statement.

When the MAPS project was designed, HCFA sought input from these clinical leaders to develop this statement to support the use of the INR. The project is led by the Arkansas Foundation for Medical Care (AFMC) and its principal clinical coordinator, Dr. William E. Golden. AFMC is known for developing the first statewide AP project in the QIO community.

Representatives from the project first met in January 1997 at the American Health Care Quality Association meeting, a closed meeting, to discuss the statement. Dr. Golden drafted the statement and distributed it to the other Principal Clinical Coordinators for their review, input and approval.

1. What Steps Can Be Taken to Reduce the Incidence of Strokes in AF Patients in the Southern States?

While stroke is a major cause of death and disability in the United States, there is strong evidence that a substantial number of strokes can be prevented through modification of risk factors and early recognition of symptoms (*Canadian Journal of Public Health*, Risk Factor Answers: A Randomized Telephone Survey of Public Knowledge, September-October 1994).

A 1996 Gallup poll revealed that although four out of 10 respondents had a family member who had experienced stroke, many of those respondents still do not know the symptoms and risk factors of stroke. Lack of this important information presents a significant opportunity for initiatives to educate the target population about stroke risk factors and symptoms and to serve as a catalyst for the behavioral changes necessary to decrease the incidence of stroke.

Under careful management, long-term therapy with warfarin has been shown to be both safe and effective, reducing the relative risk of stroke in patients with AF by 68 percent (*Archives of Internal Medicine*, Risk Factors for Stroke and Efficacy of Antithrombotic Therapy in Atrial Fibrillation, 1994). Although more than half of the AF related strokes can be prevented with anticoagulation, the benefits and risks associated with anticoagulation are determined by the patient's response to medication. For this reason, effective treatment requires regular blood testing and interaction with the medical provider in order to correctly adjust the dosage of medication (*Archives of Family Medicine*, The New Standard for Monitoring Oral Anticoagulation, 1994).

2. What Impact Does the Use of Anticoagulant Therapy in Patients with AF Have on Preventing Stroke?

Studies reveal that the use of anticoagulation in the prevention of strokes in patients with AF increased from 7 percent in 1981 to 32 percent in 1993. This change in medical practice patterns suggests that continued publication of guidelines and research data confirming the efficacy of warfarin use in patients with AF has had a positive impact on modifying practice patterns. However, the current level of warfarin use is not considered optimal and opportunities continue to exist to prevent stroke in patients with AF. This is especially noteworthy in patients past the age of 79 where anticoagulation use is the lowest and the benefit the highest (*Archives of Internal Medicine*, National Patterns of Warfarin Use in Atrial Fibrillation, 1996).

3. Why is there Continued Reluctance to Prescribe Anticoagulant Therapy?

Continued reluctance to prescribe anticoagulants persists because of the risk of major bleeding and the need for strict patient compliance with this complicated therapy (*BMJ*, Antithrombotic Treatment and

Atrial Fibrillation, 1993). Although aspirin may be prescribed alternatively because it requires less regimented monitoring and carries a decreased risk of hemorrhage, evidence indicates that this approach is only half as effective as warfarin.

National patterns of warfarin use indicate that residents of the South had significantly lower warfarin utilization rates at 16 percent compared with those in other areas of the United States where utilization is at 36 percent (*Archives of Internal Medicine*, National Patterns of Warfarin Use, 1996).

In addition, a study of 238 HMO patients with AF receiving anticoagulant therapy and monitored on a monthly basis showed therapeutic anticoagulation levels only 50 percent of the time (*Archives of Internal Medicine*, Anticoagulation in Atrial Fibrillation, 1994). Therefore, patient knowledge and co-producing behavior such as recognizing signs and symptoms of stroke, modifying risk factors and knowing their INR numbers play a pivotal role in maximizing the benefits of anticoagulation therapy.

4. What are the Concerns Associated with Adjusting Warfarin Levels Using the Prothrombin Time?

Chronic oral anticoagulation therapy has been managed traditionally by adjusting the dosage of warfarin until the measured plasma PT is prolonged to an arbitrary end point. PT measurement can lead to problems in monitoring warfarin as the number of reported seconds can be different for the same degree of anticoagulation, depending upon which thromboplastin reagent is used in the test setting. Because of variation in thromboplastin sensitivity, patients with the same degree of anticoagulation can have widely different results when monitored by different labs. This variation can lead to changes in dosing resulting in under or over anticoagulation.

The INR corrects the PT ratios obtained with different thromboplastin reagents by standardizing the result against a common international reference preparation. This is achieved by the following equation: $INR = (\text{Patient's PT} / \text{Mean Normal PT})^{ISI}$

ISI is the International Sensitivity Index which is obtained from the thromboplastin specifically used. In the United States, the ISI of most thromboplastins ranges from 1.0 to 2.0. Manufacturers are responsible for providing information to labs regarding ISI values for each new lot of thromboplastin.

Although it has been known for more than 30 years that thromboplastins vary markedly in their responsiveness and that INR is a logical approach to monitoring anticoagulation, it is still not consistently used to monitor anticoagulation therapy. Lack of standardized reporting exposes patients to unnecessary risk for bleeding or thrombotic events (*Journal of the Arkansas Medical Society*, Arkansas Foundation for Medical Care

Report, The Role of the International Normalized Ratio in Clinical Practice, 1995). The nine QIOs in the southern states strongly encourage those providers who have not been using INR in reporting PT results to adopt the INR system and to educate medical staff on the importance of standardization.

5. What Strategies Will Promote the Use of INR in Safe Warfarin Therapy?

Public awareness/education strategies used to promote the use of INR and to increase safe use of warfarin should involve both the public and health professionals.

Public Awareness/Education

A public education program is needed to do the following:

- *Disseminate INR recommendations

- *Educate AF patients to have their warfarin levels monitored and adjusted regularly as determined by their physician

- *Educate AF patients to know that the safe INR range is between 2.0 and 3.0

- *Educate AP patients on the signs and symptoms of stroke

- *Develop and distribute educational materials to providers including a patient brochure on AF, stroke, and INR.

Provider Outreach

A provider outreach program is needed to do the following:

- *Disseminate consensus statement recommendations

- *Urge health care professionals to play a strong role in educating their patients on the importance of having their INR checked regularly

- *Remind health care professionals to use the INR measurement

Conclusions

- *Medicare beneficiaries with chronic AF are at increased risk for stroke. This risk may be reduced by the use of warfarin monitored regularly to maintain a prothrombin time INR between 2.0 and 3.0.

- *To reduce variations in lab reporting caused by different test techniques, the nine southern QIOs agree that the INR is now the standard for measuring warfarin therapy with prothrombin times.

- *Patients on warfarin should play an active role in preventing stroke and avoiding bleeding complications by working with their physicians to comply with regular testing of prothrombin times and to know their INR values.

Consensus Development Panel

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Information provided by Sciens Worldwide news release.

Nationwide Poll on Patient Safety - 100 Million Americans See Medical Mistakes Directly Touching Them

More than 100 million Americans may have been touched by what they consider a medical mistake according to a nationwide poll conducted by Louis Harris & Associates an independent survey research and consulting firm, and released recently by the National Patient Safety Foundation (NPSF) at the AMA. Of those randomly surveyed, 42% said they have been involved in a situation where a medical mistake was made, either

personally or through a friend or relative. The margin of error was less than 3% plus or minus. The report was released at a special briefing Finding Cures for Medical Error hosted by NPSF.

Topping the list of what respondents believed to be medical mistakes were misdiagnoses and wrong treatments, cited by 40% of those affected by health care error. Other frequently cited mistakes were medication errors, mentioned by 28%, and mistakes during a medical procedure, cited by 22%. Causes cited by more than half the respondents affected were what they believed to be carelessness, improper training and poor communication.

"Patients and their families are among the first whose views on patient safety need to be incorporated in NPSF initiatives to reduce errors and that is why we commissioned this survey of the general public," said Nancy W. Dickey, M.D., president-elect of the American Medical Association (AMA) which launched the NPSF as an independent organization earlier this year. The NPSF sponsored the survey in partnership with the National Consumers League and Research America.

Mary Woolley, M.A., president of Research America presented the findings as part of a day of presentations by experts and leaders who are defining how health care professionals understand and learn from medical errors. The briefing also focused on the complex systems in which providers and patients interact.

"Most errors result from faulty systems -- poorly designed processes that 'set people up' to make mistakes by putting them in situations where errors are more likely to be made," said Lucian Leape, M.D., of the Institute for Health Care Improvement at the Harvard School of Public Health and a founding board member of the NPSF.

Research cited by Dr. Leape at the briefing echoes the findings from the opinion poll. According to Dr. Leape, the number of injuries caused by medical errors in inpatient hospital settings nationwide could be as high as three million and could cost as much as \$200 billion.

Richard Cook, M.D., assistant professor at the University of Chicago Department of Anesthesia and Critical Care, and David Woods, Ph.D., professor of industrial and system engineering at Ohio State University, both agree that understanding the system in which health care is delivered is a critical component of error prevention.

"An accident is a message from the underlying system. To be able to read that message, it is important to understand the systematic factors behind the behaviors commonly labeled human error," explained Dr. Cook, who, along with Dr. Woods presented at the briefing.

Pointing toward potential solutions, the briefing

reviewed improvements in reducing medical mistakes, including the dramatic advances that have been made in reducing anesthesia risk through the use of simulators.

"Just like anything else, it takes practice to know how to effectively deal with significant crises," said David Gaba, M.D. director of the laboratory on human performance in health care at VA Palo Alto Health Care System and Stanford University. "Other industries and the military know this and train their people with simulators. Medical professionals need to adopt this same approach and undertake more simulation training in order to eliminate errors or reduce the impact of errors."

Dr. Gaba, with his colleague Jeffrey Cooper, Ph.D., chair of the Anesthesia Patient Safety Foundation Scientific Evaluation Committee and associate professor of Anesthesia, Massachusetts General Hospital, spoke about the critical role simulators play in teaching physicians and other medical personnel crisis management skills and in reducing human error.

In the area of pharmacy, the issue of bar coding was discussed as a way to improve the tracking of medications delivered to patients in the hospital.

"I am amazed that we have not seen more bar-coding used in the hospital setting, particularly since it has been readily adopted by so many other industries. As consumers, for example, we see it every day in the supermarket," commented Charles Myers, M.S., assistant vice president of the American Society of Health-System Pharmacists.

The NPSP is an unprecedented initiative to improve health care safety by studying why errors in the health care system occur and implementing safeguards to prevent such failures from injuring patients. NPSF board members represent every major segment of the health care system, as well as employers, medical ethicists, public health advocates and distinguished scientific research institutions. Finding Cures for Medical Error was sponsored in part by an educational grant from Hoescht Marion Roussel. — *Information provided by news release from the National Patient Safety Foundation at the AMA.*

UAMS Library Adopt-A-Book Program

The History of Medicine Associates are initiating an Adopt-A-Book Program. Books available for adoption are titles from the Historical Collection that need conservation treatment. Individuals, departments and colleges are invited to consider adoption. Donors, by "adopting" these important works from the Historical Collection, ensure that the selected texts receive the conservation treatment required to prolong their lives. Donors will receive an adoption packet and a commemorative bookplate will be placed inside the book. Adopting a rare and endangered book is a wonderful and lasting way to mark a celebration. Graduations,

marriages, retirements and other life events may be commemorated in this unique way. If you are interested in an "adoption," please call Edwina Walls Mann at 501-686-6733. - *Information provided by UAMS news release.*

Arkansas Program Receives Award

The Arkansas WIC (Women, Infants, and Children) program has received a national award from the U.S. Department of Agriculture for its innovative outreach efforts targeted to the early enrollment of pregnant women. The recognition was given for the high rate of enrollment in the program of pregnant women in their first trimester. Arkansas' 1992 enrollment rate (60.2%) and 1994 rate (64.2%) were the highest among all geographic WIC programs nationwide. Comparatively, the U.S. enrollment rates for 1992 and 1994 were 33.7% and 38.8%, respectively. Mac Heird, director of the WIC program in Arkansas, said its success was due to a combination of factors, including dedicated, educated staff located in local public health offices, who coordinate services; and Arkansas' successful Campaign for Healthier Babies program, which is sponsored by several state agencies, not-for-profit organizations, and nine hospitals located throughout Arkansas.

WIC is a nutrition program for women who meet specific guidelines and are pregnant or have children younger than five years of age. The program helps provide needed food for expectant mothers, and, through its clinics, offers prenatal care and makes patient referrals to other healthcare providers when necessary. - *Information provided by The Notebook, a weekly publication of the Arkansas Hospital Association.*

Disciplinary Action Bulletin – Arkansas State Board of Nursing

The nurses listed in this bulletin have had disciplinary action taken against their licenses. When a nurse's license to practice nursing is revoked or suspended, return of the license to the Board Office is requested; however, licenses may not be returned. Also, individuals placed on probation must continue to meet conditions for the retention, or future reinstatement, of their licenses. When hiring such an individual the Board Office should be contacted. Therefore, the Board routinely suggests this list be shared with the appropriate supervisory personnel and recruiters in your organization. At the completion of the disciplinary period, the nurse applies for reinstatement. Reinstatement is contingent upon meeting the conditions set forth by the Board.

In accordance with the Arkansas Nurse Practice Act and the Arkansas Administrative Procedure Act, the Arkansas State Board of Nursing took the following action after individual hearings:

DISCIPLINARY: October 9-10, 1997:

*Debbie Cannon Dodgen, LPN 31207 (Star City) Probation – 1 year, Civil Penalty - \$500

*Deborah Renee Dukes, RN 36005 (Hot Springs) Suspended – 4 years, Civil Penalty - \$2,000

*Jimmy Richard Graham, LPN 26905/LPTN 1554 (North Little Rock) Revoked, Civil Penalty, \$4,000

*Iantha Don McCormack Morris, RN 18985 (Jonesboro) Probation Non-Compliance, Suspended – 2 years, Civil Penalty - \$1,550

*Martha Jeanette Spann Powell, LPN 8947 (Memphis, TN) Suspended – 2 years, Civil Penalty - \$1,500

*Laura Marie Turner, LPN 30856 (Springdale) Suspended – 2 years, Civil Penalty, \$2,210

Consent Agreement:

*Nancy Jackson Freeman, RN 27161 (Dover) Suspended – 3 years, Civil Penalty, \$3,500

License Voluntarily Surrendered:

*Gayle Ann Holmes, RN 27776 (Little Rock) 9/22/97

Letters of Reprimand:

*Dwight Lee Abernathy, LPN 31085 (Alexander) 9/26/97

*Anna Sue Gann McCloud, LPN 26513 (Newport) 9/29/97

Off Probation:

*Nanci Carol Tilley Snow, LPN 21499 (Heber Springs) 10/3/97

Other:

*Vivian Gambles, AR-RN 53840 (Memphis, TN) APN Temporary Permit 57903199, Expired 7/24/97

*Jeffrey Scott Frey, RN Temporary Permit 565-65-7429, Void as of 10/10/97

Information provided by the Arkansas State Board of Nursing.

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AMS Newsmakers

Dr. Art Martin and his wife, Amelia Martin, are recent recipients of the Sebastian County Medical Society's Distinguished Service Award for their lifetime contribution to family, medicine, historical preservation and community. This is the first award ever given by the medical society. Dr. Martin is a retired Fort Smith physician.

September 27, 1997, was set aside to honor one of Yell County's most beloved doctors, Dr. J.O. Pennington. The City of Ola and the J.O. Pennington Day planning committee organized a full day of festivities. Proceeds from the auctions and dinners will go toward improvements and upkeep of the Ola City Park. A quilt, filled with names and birth dates of the people Dr. Pennington delivered, was donated and presented to Dr. Pennington along with a street sign bearing his name and a plaque. It is estimated that Dr. Pennington delivered some 2,500 babies before he stopped doing deliveries in the 1980s.

Dr. Hirma T. Ward, a Murfreesboro general practitioner, is retiring after 44 years of service to the medical field. A reception honoring him was held recently at Pike County Memorial Hospital.

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. Recipients for the month of October are as follows: Philip Raymond Hardin, Mountain Home; Robert E. Jones, DeValls Bluff; Robert Campbell Thompson, Van Buren; and Marc Harris Trager, Mountain Home.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:
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AMS Benefits wishes to extend appreciation to the following for providing assistance for the new AMS Benefits advertisement:

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(for extra assistance and use of The Villa Marie)

UAMS Library, Special Collections
(for use of the doctor's bag and stethoscope)

*Thank You,
You've been a great help!*

Patient Satisfaction is Key to Success

Steven B. Lampkin, F.A.C.H.E.*



"Customer satisfaction" is one of several "Key Result Areas" utilized in today's healthcare industry to measure overall success (or failure). Additionally, such outcomes as "clinical quality of care" and "cost effectiveness" are fundamental dimensions of determining operational performance of healthcare providers. At our institution, patient satisfaction is a key aspect of "customer satisfaction," along with physician and employee team member satisfaction.

The healthcare industry trend toward more patient choice is the reason patient satisfaction is so important. In the future, providers—including hospitals, physicians, and other medical services—will compete increasingly on service levels that are ultimately determined by patient satisfaction. For example, research shows that consumer perceptions about hospitals are based on the consumers' own personal experience or that of a close friend or family member. This escalates the importance for our hospital (and all providers, including physicians) to monitor how well we are doing in the interactions and experiences with our patients.

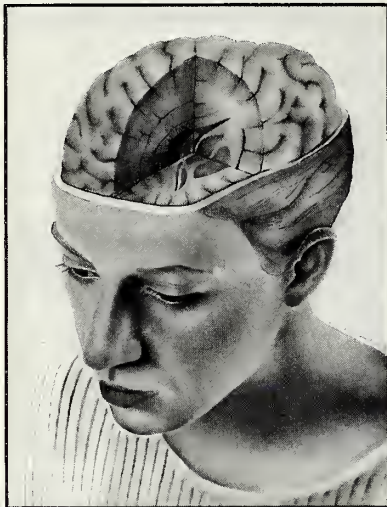
Generally, our organization uses patient survey results to let both our management and employee team members know how well they are doing, what and where they need to improve in terms of both operational processes and people skills, and the progress being made for the goal of patient satisfaction. For example, we utilize the Press, Ganey, Inc., survey tool in the areas of inpatients, outpatients and emergency room visits. The surveys include questions covering most aspects of the patient's hospital experience, such

as the admission process, room accommodations, diet and meals, nursing care, tests and treatment, physician interactions and discharge. In conjunction with physician leaders, we establish patient satisfaction "targets" for each area of the patient satisfaction survey. Based on those targets, our department managers and employees measure, monitor and track outcomes on a monthly basis. With the results in hand, managers are responsible for developing 90-day action plans based on the areas targeted for improvement. Subsequent reports then enable our staff to monitor changes in patient perceptions as they work to concentrate resources on those areas important to improving patient satisfaction.

Moreover, patient satisfaction results are reviewed by special quality committees involving employees, managers and physician team members. Ultimately, the satisfaction results are monitored by both the senior executive team and the board of trustees at our organization.

In conclusion, it is important that physicians know about patient satisfaction results both in the hospital setting as well as in their practices. Consumer expectations of both sets of providers will continue to increase as the "baby boom" generation ages and seeks medical care. With increased competition in the marketplace, therefore, it will become increasingly important for physicians and hospitals to continue to improve services, as measured by mutual customers. Only by knowing and understanding the perceptions of our customers is it possible to improve overall satisfaction in a competitive environment.

* Steven B. Lampkin, FACHE, is Senior Vice President and Administrator of Baptist Medical Center in Little Rock.



self portrait by Cynthia Clarke

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- *UAMS full time biomedical graphic artist, 1994-1995
- *University of Rochester School of Medicine, human gross anatomy lecture and full cadaver dissection, 1996-1997
- *Strong Memorial Hospital, observation and illustration of surgical procedures, 1996-1997
- *Rochester Institute of Technology, graduate assistant and instructor, 1996-1997.

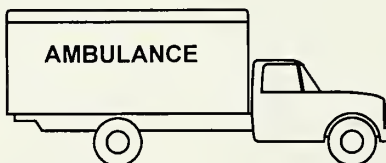
Her publication work includes cover illustrations for *The Journal of the Arkansas Medical Society*, November 1997; two illustrations demonstrating the proper method for tick removal in *Seminars in Pediatric Infectious Diseases*, April 1994; and an illustration demonstrating how asthma is triggered in the classroom in *Pediatric Nursing*, March 1994.

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A Treatise on Hansen's Disease (leprosy) in Hawaii in the 1800s

Donald J. McMinimy, M.D.*

Editor's Note: In October 1996, Dr. McMinimy visited the Leper Colony on Molokai. This article is about his experience and his knowledge and research on the subject.

Seventeen-seventy-eight was not a good year for the Sandwich Islands. It was in this year that Captain Cook discovered these islands. He noted that the people seemed to be one of the "finest races on Earth." The population of the Islands at that time is estimated to have been about 300,000. By 1896 the native population had fallen to about 31,000. With Captain Cook and other ships and their Captains later came the plague, smallpox, cholera, influenza, and pertussis, along with various venereal disease. The white people were blamed for bringing leprosy (Hansen's Disease) to the Islands. They probably share the blame only in bringing Chinese laborers to the Islands. It is thought the leprosy came with the Chinese who were brought over to work on the large plantations. One important chieftain, related to the Royal Family became infected probably from his Chinese cook. He was banished to Maui along with attendants to care for him until his death in 1854. But as these attendants went throughout the Islands they probably carried the disease with them.

Leprosy has been the plague of man for thousands of years. The cause of this disease was first found by a Norwegian physician and bacteriologist by the name of Dr. Gerhard Henrik Hansen (1841-1912) in 1874. As a matter of fact, this is the first disease to be described due to a bacterium. Leprosy is a chronic infectious disease caused by *Mycobacterium leprae*, related to the causative organism of tuberculosis. It is an acid fast rod. During the Middle Ages when leprosy spread rapidly throughout Europe, harsh restrictions were designed to protect the public, and caring for the afflicted was transferred from the medical profession to the religious community. The Church had a symbolic funeral in which the afflicted person was laid on a funeral bier and covered with a black cloth. When the "service for the dead" was completed, "pallbearers"

carried the person to the hovel where he would live, unvisited, unattended, until death claimed him.

Leprosy was probably first described in Hawaii by Rev. Charles S. Stewart, an early Protestant missionary. During the years of 1823-25 he "described cases of ophthalmia, scrofula and elephantiasis which were very common." Leprosy in the New Testament was called *elephantiasis Graecorum* by Greek physicians. The disease spread rapidly through the Hawaiian Islands.

In 1850, the Hawaiian Government established the first Board of Health to study the wide spread of a disease called cholera. But with each meeting, more and more attention was given to the problem of leprosy. By 1865, the leprosy disease had spread markedly. The Board wrote to other countries to see how they were dealing with this terrible scourge. On January 3, 1865, King Kamehameha V signed into law the "Act to Prevent the Spread of Leprosy." Thus, leprosy no longer was a disease but a crime. After much discussion, it was decided to establish a hospital near the seashore in Honolulu for treatment of mild cases. A large tract of land was obtained on the Island of Molokai as a settlement for more advanced cases. The Kalihi Hospital on Oahu was opened on November 13, 1865, at which time 62 people reported for examination. Forty-three of these cases were diagnosed as leprosy and hospitalized. In ten years the hospital was abandoned because of its cost, failure to isolate and inability to effect cures. And, "it would have astounded them to think that 100 years later, isolation of people with leprosy would still be the rule of the Hawaiian Islands."

The land on Molokai that was obtained for isolation of these diseased "criminals" was the Makanalua Peninsula, commonly known as Kalaupapa. It is located on the north coast of Molokai. It is a 7,000-acre triangular piece of land formed by two small volcanoes. The coast is very rocky. The back of the peninsula is protected from the rest of the Island by a 2,000-foot cliff. The land was very fertile and had been used in the past to raise sweet potatoes and hogs. These commodities had been exported to California in its earlier

* Dr. McMinimy of Fort Smith is a retired physician who practiced in Arkansas from 1959 until 1984.

days. On January 6, 1866, the first "shipment" of patients, which consisted of nine men and three women, were landed on the peninsula. Actually, they were not landed. The ships stayed well off shore and these people were put over board, (probably not too gently) and expected to swim to shore. The inmates were expected to grow their own food and to build their own shelter. The land was heavily timbered. They were landed at the Eastern end of the peninsula which was called Kalawao. This was the rainy, wet part of the peninsula. The Colony would much later be moved to the Western end, known as Kalaupapa. The crater was Kauhako Crater which became the burial ground for those who died of their disease. I suspect that many drowned as they swam and made their way to shore through the rough seas for which this side of the Island is known. Very little provisions were made available to the patients and no housing. At it's peak, the population of the settlement was 1,174.

Leprosy became a crime and not a disease. People who were suspected of having the disease were snatched away from their homes and family and taken to the Peninsula. By October 1, 1866, a total of 101 men and 41 women had been left ashore at Waikolu, a valley near Kalawao. The Board expected these people to become self sufficient. But to their dismay this was not to be. With the deformities and weakness and loss of muscle strength, this was impossible. Occasionally some ship would bring some supplies. Soon, lawlessness became very evident in the Colony. These people realized they had been sent there to die so there was no deterrent to crime. How worse could they be punished. There was no law. They engaged in gambling, drinking, which was with a homemade, brandy-like concoction distilled from the roots of the ki (ti) plant. They engaged in all kinds of vices. It was every man for himself. When new patients were brought in and had to swim to shore, their belongings were thrown overboard to float to shore but who ever got to them first became the owner.

Stories of settlement life made their way back to Honolulu and were filled with tales of drunkenness and debauchery. The loudest cry from Kalawao was "*A'ole kanawai ma keia wahi*" - "In this place there is no law!" Then families would hide those of their loved ones in the hills or somewhere so they could not be found and arrested and sent to this terrible place. It has been said at that point perhaps only 1 out of 10 people suffering from Hansen's disease were found.

In 1867, the Board of Health made a number of improvements with a hospital, five dormitories, an office, dispensary, storehouse, cookhouse or kitchen, bath house and outhouses, a morgue and a jail with two 8' by 10' cells. They also built in the compound a schoolhouse surrounded by a white picket fence. The problem was they could not find a doctor who would

work at the hospital. The source of my information does not say so but I suspect it was difficult, if not impossible to get anyone to go there and work. Also in 1867, they appointed a Mr. and Mrs. Donald Walsh as school teacher and nurse, respectively. But their tenure at the Colony did not last more than 2 months. The patients harbored resentment toward *haoles* (white men) who they blamed for their isolation and disease. The Walshes could not speak the language and had much trouble; even friction developed between the Walshes and the Superintendent. Incidentally the superintendent was an owner of a large plantation up on the main island, away from the leprosy. He was kept away by the 2,000-foot up and down cliff that separated the peninsula from the main Island of Molokai. The "suffers of Hansen's Disease" did not understand the Walshes' and the superintendent's attempt at helping them. So once again, anarchy prevailed.

Although the settlement had gained the reputation as a "living tomb," and a place of drunkenness and debauchery, many of the patients did not fit into that image. There was a Congregational Church with the pastor, not a resident but making periodic trips down from Molokai. The Catholic Church also had members in the community. A Brother Victorin Bertrant built a wooden chapel in Honolulu and transported it to Kalawao where he assembled it. On May 30, 1872, the church was dedicated to St. Philomena, a young Grecian princess who had been martyred for her faith. The Mormon church eventually built a church at Kalawao. *Kokuas* (helpers) helped as they could. But they never seemed to contract the disease. The willingness of people to help seemed to gradually lessen as time went by.

When King William C. Lunalilo ascended the throne in January 1873, he appointed a new Board of Health with instructions to strictly enforce the segregation laws. A new doctor was appointed to the Kalihi Hospital and it was decided that all visitors must be restricted. In the Colony at Molokai the Superintendent was instructed to send all *kokuas* (helpers) away immediately and to allow no visiting by family to the area. The Board decided to try and improve conditions at the settlement. They established a general store at Kalawao in 1873. The new King wrote a letter to the public in general that "segregation and isolation" of all people with leprosy had to be strictly enforced. The local paper strongly supported the King and published his letter on May 10, 1873. It was felt that for the good of the Kingdom that all lepers be arrested and isolated at the Leper Settlement at Molokai. Since there was no cure, everyone realized that these people were being sent there to die. On that day, a man would set foot on the shores of the Kalawao Settlement who would forever change the nature of leprosy treatment

in Hawaii.

On May 4, 1873, Bishop Louis Maigret met with four young priests for the consecration of St. Anthony's Church, a new church in Wailuku, Maui. One of these young priest was Father Damien de Veuster from Belgium. These priests belonged to the Community of the Sacred Heart. Father Damien had been stationed on the Island of Hawaii. He was 23 years of age. The Bishop told them that help was needed to minister to the lepers at the Molokai Settlement. The four decided that each one of them would take a three-month tour of duty. Father Damien volunteered to go first. After arriving at Kalawao, he wrote to the Bishop and said that he wanted to devote the rest of his life to helping the leprosy victims.

Again, he had trouble getting cooperation because of the dislike for the '*haoles*' (white men). He slowly gained their confidence. He built on to the church of St. Philomena. He slept under a *pu hala* (pandanus) tree beside the church and just in back of the altar. He got lumber and started building proper shelter for his people. He was asked why he did not build a house for himself. His answer was "until my people have shelter, the sky will be my roof and the ground my floor." He wrote letters asking for money, food, clothing, and building materials.

The newspapers soon got word of this young priest devoting the rest of his life to the helpless, sick people. They made a hero out of him. This brought lots of criticism on his head from the other denominations who said they had been helping these people also. His own church people criticized him for exploiting this for his own glory. He had this to put up with all of the years that he lived there and the criticism continued long after his death. He was also constantly in trouble with the Board of Health. At one time they listed him as a criminal and said if he left his isolation at the settlement he would be arrested and never be allowed to return to the Colony.

He started slowly bringing law back to the community. He discouraged drinking, gambling and other vices. The brewing of the alcohol from the ti root was eventually abolished. He was not a doctor and had no knowledge of medicine. But a patient who had worked in a hospital showed him how to bandage wounds. The stench from these sores was so bad that he could hardly stand it at first but gradually became used to it. So each day he made his rounds, ministering to the people, binding up their sores, giving them chaulmoogra oil which was the only treatment known to possibly help at that time. He became priest, father confessor, nurse, doctor, carpenter and finally mortician. Up to that time the bodies of the dead were thrown into the volcano pit and it's lake. He started burying people, probably having to do much of the work himself because of the limitations of the leprosy

sufferers. (Or as the patients prefer, "sufferers of Hansen's disease.")

He noticed that at his church not many of the people would come in but would stand at the windows and watch. He wondered why and found out that many of them had to spit or expectorate often, large quantities of purulent, foul smelling sputum with scabs in it. So he cut holes in the floor along the pews, in which the people could bring a large leaf, make a cone out of it, bend the bottom and stick it down in the hole so they could spit or expectorate in it.

Within three years, he knew he had leprosy. He developed a painful foot, later followed by numbness. He developed severe sciatica on the left side from which he never did get relief. The arrival of Mother Marianne and Sisters Leopoldina and Vincentia at the settlement in November 1888 fulfilled one of Father Damien's greatest dreams. Although assisted by Father Conrardy and Brother Joseph Dutton, Damien knew of the importance of women in the care of the sick and abandoned, especially children. Brother Joseph Dutton was born Ira B. Dutton. Dutton fought in the Union Army in the Civil war. Following this were several years of drinking, general debauchery, and a divorce. Finally in 1876, he joined the Catholic Church and then joined a Trappist Monastery, located at Gethsemane, Kentucky. He heard of Father Damien's work and decided to join and help him as Brother Joseph Dutton in 1886. He helped organize schools, competitive sports, and choirs. Mother Marianne in her way organized girl schools and similar activities. She established a separate home for new babies who did not have leprosy and cared for them until they could be transported up the trail to Molokai for adoption or to be sent to an orphanage. Father Damien's hope was to teach the people *the importance of living for each day and to learn the dignity of death*. It was well known if someone had trouble or needed help all they had to do was to ask *Makua Kamiano* (Father Damien) who would freely give out whatever he had.

He had to abide by the segregation laws the same as every one else at the Settlement. He kept in constant touch with his superiors in the church and also communicated with the Board of Health. They were very apprehensive about his methods and constantly criticized him. He frequently referred to himself as a State Prisoner. This he had to put up with for the 16 years that he ministered to the colony. They did relent finally on his leaving the Settlement and he went to Honolulu on a couple of occasions for medical help. One of his worst heartaches was the inability to attend his own confession and take communion. Finally, a ship arrived with a priest on board. Father Damien had to row out to the ship. The priest was not allowed off of the ship and Father Damien could not board it. So his confession had to be shouted to the priest. His

leprosy gradually worsened. Facial lesions appeared. His condition worsened, and on April 15, 1889, he died "with a smile, like a child going to sleep."

Brother Dutton continued the work until 1930 when he had to leave with an eye condition and died on March 26, 1931, without being able to return to his beloved Colony. Mother Marianne lived until she was 80 years of age and was an effective force until her death on August 9, 1916. I believe the leper colony was active until 1969.

I had the opportunity to see the only patient that I ever saw with leprosy in the late 1960's. He was referred by a doctor friend of mine in Oklahoma because of excessive nasal and mouth secretions. He was a black man from East Africa, one of 10,000 men brought over here by the State Department to study soil and water conservation. He could speak no English nor could I speak his language. We got along just fine using sign language. Except for the secretions, a few nodules on his face in front of the left ear and a strange thickened cord that ran from his mastoid down the neck to the base of the neck, I found nothing else abnormal. His sputum was positive for acid fast bacilli. I found a picture of the cord in his neck in my textbooks that evening and learned this is the Greater Auricular Nerve which is frequently effected early in leprosy. He was admitted to the hospital in isolation for biopsy of the nodules on his face. These proved to be of leprous origin. I wanted to send him to Carrville, Louisiana, to the Leprosarium but the State Department insisted that he be sent home. They had a ticket waiting for him at the nearest airport.

In October 1996, I had the opportunity of visiting the Leper Colony on Molokai. The Colony was taken over in 1983 by the National Park Service and is operated in conjunction with the 62 residents. Tours are allowed, no more than 25 at a time and must be scheduled. One must stay with the tour guide and the bus. One is not allowed to take any pictures of the 62 residents who are recovered sufferers of Hansen's disease without their permission.

I flew along with other people on a small two engine airplane from Maui. We had a good view of the peninsula and Leper Colony by air as we passed it on our way to land on Molokai to pick up two more passengers. We arrived back at Kalaupapa and landed at the small airport. As we flew in we noticed a light house which in it's active years could be seen twenty-one and a half miles out to sea. It was closed in 1969. We were met by our guide, a recovered sufferer of Hansen's disease, who was a native Hawaiian. His name was Henry. We drove in the bus out to a clearing close to the large cliff, awaiting the arrival of two more of our party who came down the trail on mules or horses. The trail was closed by the Park Service in 1992 as being too dangerous and was only reopened

in 1996.

Then we drove through the town which is located at the west end of the peninsula and drove to the east end where the settlement, called Kalawao, was first started. There are three divisions to the Makanalua peninsula, the first is Kalawao ("The Leafy Wilderness") on the east, the second is the central section where the volcanoes are located ("The Given Grave or Pit"), and the last section on the west, Kalaupapa ("The Leafy or Flat Plain"). There is nothing that is very unusual except for it's dull and forsaken look. At Kalawao where the first settlement was located, there is a large cleared area, surrounded by forest. At one end is the ocean with its rocks, and wild waves. There is a small picnic ground and this is where we ate our lunch. On the other side of the clearing is the Church of St. Philomena. Next to it on the east side is a small graveyard which holds Father Damien's grave, and that of Brother Dutton and others. Mother Marianne is buried in Kalaupapa. I had my picture taken with Henry and noticed his fingers were drawn up flat against the palm of his hands as though they were useless.

We visited Father Damien's Church. There is a newer addition which encompasses his church. The two are at right angles to each other. The altars are also at right angles with Father Damien's altar to the right of the main altar. The original of Father Damien's altar was taken back to Belgium in 1937 when the Belgium government also moved his body to his home town where he was born in Belgium. Henry had the group sit in the seats of the original church and told us something of the history of the settlement. There are 7,000 graves on the peninsula. Many people were buried in one grave. Many babies are buried here. He did not mention how many unmarked graves there were. He knew of no one who had ever escaped the Leper Colony. He was found to have leprosy and was taken from his family at the age of 15. He was sent to the Colony and told he would die within five years. Fortunately he lived long enough to benefit from the sulfone drugs that came along in the late 1940's and afforded a "cure" at that time. It should be mentioned that chaulmoogra oil was used in China as long ago as the fourteenth century for the treatment of leprosy. The natives of Southeast Asia had long known of the curative properties of chaulmoogra seeds in skin diseases, especially leprosy. The oil was used externally and internally although the latter method often produced nausea and disturbed digestion. It was interesting for him to tell when Father Damien did get help. These helpers would not give the patients their medicine directly but would place it on a high pole in front of their house and these crippled, sick people would have to come out and get it to take themselves. Father Damien was known for his personal care of these patients.

Henry, after recovering from Hansen's disease, went back to his home as an adult. It was impossible for him to get work and rather than depend on his parents and relatives, he came back to Kalaupapa and chose to spend the rest of his life there. This probably was much the same story with the other 62 inmates. He said they are each paid a small pension. He asked us how many were Catholics. There were a number of hands that went up. He asked them if they missed anything in the Church. No one did. He said there is no Communion Railing. Father Damien removed it and left a large space in the floor where the patients with their copious secretions could expectorate. Up until then the people would not come into the Church but would stand at the windows outside because of their need to expectorate. One lady asked the question, "what about your teenagers?" He answered, "our youngest teenager is 57." There was a moment of silence in the whole church and audience. Then the lady said quietly, "then you are a dying Colony." Henry answered, "yes, we are a dying Colony."

We next visited the town and it was not unusual except for one real nice home surrounded by a picket fence. Henry became somewhat upset and said, "there is a stupid rule that we can not go past that picket fence." He did not elaborate. There were several churches, a general store, a beer tavern. There was a public building which housed the local government with the police and fire stations. The old hospital burned to the ground in 1932. We saw many large graveyards, many with markers. We visited the plain simple dock with an old piece of machinery on it where a barge comes in once a year with large supplies. Otherwise all food, perishables, and other items desired are brought in along with the mail once a week by airplane.

We visited a small museum. We also visited a small store where they had souvenirs and books. I bought two books. The little lady who took my money was so cute. She was quite elderly, wrinkled but with a big smile. She gave me a plastic bag to put my books in. I had trouble opening it and so she said "let me help you." When she did, she took the bag with both hands and rubbed the bag back and forth until it was open. I noticed she had no fingers. Her voice was a whispery, rasping type of voice because of the scarring of the larynx. Father Damien's voice was described in this manner before his death. She had me hold the bag and she put the books in it. Her smile was such that one felt like giving her a big hug, like you would give your grandmother.

Finally, we were taken back to the airport, and we were on our way home. Many of the passengers in the airplane were Catholic. I was sitting in the back row. One of the ladies asked her friends who they could think of in this day and age who would be comparable to Father Damien. No one came up with any answer other than Mother Teresa of India.

As I pondered on my trip, I wondered about the modern treatment of Hansen's disease and found the World Health Organization recommends the use of the Multiple Drug Therapy. There is much less drug resistance with this than with the one drug therapy. I contacted the Hawaii Department of Health and found this is the form of treatment they use. This includes dapsone, rifampicin and clofazimine. In January 1996, there were 320 cases of Hansen's disease in Hawaii. In January 1997, there were 301 cases. The person I talked to in the Health Department estimated that they would get 25 to 30 new cases each year. However, a faxed report I received indicated about 12-15 new cases each year. In a newspaper article in 1996, there was a report of 6 new cases on the Island of Hawaii, but, when investigated, these were found to be in immigrants from Micronesia. Estimates of the amount of Hansen's Disease in the world range from two to five million and up as high as ten million. Many of these cases are located in East Asia.

With the increasing onset of AIDS, one wonders if Hansen's Disease (leprosy) like tuberculosis may become a very increasing problem. A few years ago, we eliminated the need for tuberculosis sanatoria but now found an alarming increase in tuberculosis since the onset of AIDS. People who suffer this problem have little or no immunity and therefore are ready candidates for tuberculosis as well as many other diseases that we heard little about in past years. Many cases of tuberculosis are now drug resistant. Might this happen with leprosy in the same way?

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Treatment of Catheter-Induced Obstruction of the Superior Vena Cava with Wallstent Endoprosthesis

A.H. Rusher, M.D., F.A.C.S.*

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Larry Bodeker, M.D.**

Introduction

Since William Hunter's description of the superior vena cava syndrome (SVCS) in 1757, the frequency of this reported pathological problem has ever increased. Although various malignancies account for 70-80% of cases of SVCS, it is the benign conditions that have captured most recent interest. New technical modalities have allowed for rapid symptomatic relief of the SVCS. The following case report and discussion will describe the cooperative efforts of surgeons, radiologists and oncologists to maintain patency in the patient with a central venous catheter induced obstruction of the SVC.

Case Presentation

Our patient is a 54-year-old, 300 pound white male with a diagnosis of stage II adenocarcinoma of the right colon resected in May 1995. Although four of fifteen mesenteric lymph nodes contained tumor, there was no evidence of metastatic neoplasm in the liver nor peritoneum. Adjuvant 5-FU and Levamisole chemotherapy was begun on protocol but by April 1996, metastasis to the liver was confirmed by CEA of 40 ng/ml and by CT scan. An hepatic artery catheter was inserted for monthly infusions of FUDR and a port-a-cath in the right subclavian vein was used for systemic 5-FU. The malignant foci in his liver stabilized over the next several months with this treatment plan.

By September 1996, he presented with right-sided facial swelling and the new formation of collateral veins

on his upper chest. Doppler ultrasound of the subclavian and internal jugular veins appeared normal. A chest CT was also normal. Superior vena-cavagram, however, confirmed our suspicion of stricture in the SVC just beyond the confluence of the right jugular and subclavian veins. This 5 mm stricture was adjacent to the tip of an indwelling subclavian catheter. A balloon angioplasty successfully dilated the stricture with resolution of his SVCS for the next five months. Return of symptoms occurred in February 1997.

Technical Management

Because of our patient's large size, we chose to preserve port site and catheter location. Utilizing local anesthesia and IV sedation in the angiogram suite, a cutdown on the right subclavian port-a-cath was performed. The catheter was clamped and removed from the port. A 0.035 inch guidewire was passed through the catheter and the catheter was removed from the SVC. A 9 FR vascular sheath and a multipurpose catheter was placed over the guidewire. Contrast test injections within the right brachiocephalic vein demonstrated complete obstruction of the SVC. A 0.035 inch hydrophilic, angled guidewire (Terumo) eventually traversed the obstructed SVC. The obstructed area was dilated with a 14 mm balloon angioplasty catheter inflated to 12 atm.

Following the dilation, a 16 mm diameter Wallstent (Schneider) endoprosthesis was deployed in the SVC. It was necessary to deploy a second similar stent in tandem fashion to allow for complete coverage of the obstructed segment of SVC. Post stent placement venogram demonstrated essentially normal luminal diameter and normal venous blood flow. The remaining guidewire was used to replace the right subclavian

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port-a-cath in the stented SVC. The catheter and port were flushed with heparinized saline and reinserted into the prior pocket. Relief of the SVCS symptoms occurred rapidly and has persisted with no long-term anticoagulation.

Discussion

The SVCS consists of symptoms due to the obstruction of venous flow in the SVC. The symptoms include facial and upper limb edema, headache, dyspnea,

nasal congestion, dysphagia, and visual disturbances. Facial cyanosis and enlarged collateral veins over the chest and neck are also frequently seen.

The etiology of the SVCS is malignant disease in 70-80% of cases, the most common of which is bronchogenic carcinoma invading the mediastinum.^{1,3} Lymphoma, mesothelioma, and metastatic disease can also produce this phenomenon. Non-neoplastic diseases causing the SVCS include fibrosing mediastinitis, granulomatous disease, and thrombosis from indwelling catheters used for venous access or from pacemaker wires.

Central venous catheters are known to cause intimal damage from mechanical effects and from the direct damage from dialysis flow and TPN or chemotherapy solutions which tend to be sclerotic in nature. Generally, these venous problems can be treated with anticoagulants, by removing the causative agent if possible, with balloon angioplasty, and recently by using expandable metal stents.

The stents available for use in the situations like that described include the self-expandable Gianturco Z-stent (Cook), the balloon expandable Palmaz stent (Johnson & Johnson), the self-expandable Wallstent (Schneider), and the Maas double helix spiral prosthesis (Medinvent).²

For SVCS, the stents used should be large (>16mm) and long (4-10 cm). Patients are preferably kept anticoagulated for two to three months after stent placement to allow full endothelialization.³ The death rate from stenting procedures is 3% and complications range from 10-30%. Stent migration, perforation, infection, fracture of the stent, thrombosis, hyperplasia, and restenosis of the vessel are the likely complications. Post stent follow-up can be performed with venography or transesophageal echo.

The SVCS is a medical emergency sometimes requiring treatment before a pathologic diagnosis is obtained. Since the first reported successful placement of an intravascular stent for the treatment of SVC obstruction in 1986, there have been several published series and case reports. It is desirable to have stent technology available as an alternative to traditional treatments with radiation, surgery, oncological drugs, thrombolytics, and balloon angioplasty.

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Figure 1: SVC stenosis dilated with 15 mm balloon on 10/1/96. Note portacath riding upward.

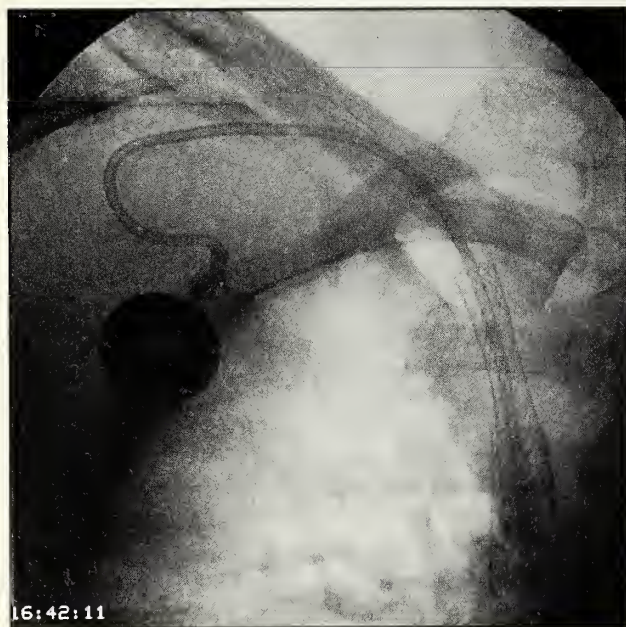


Figure 2: SVC restenosis dilated and stented on 2/12/97 with replacement of portacath.

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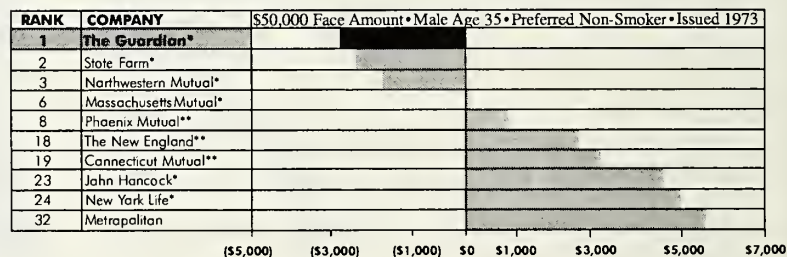
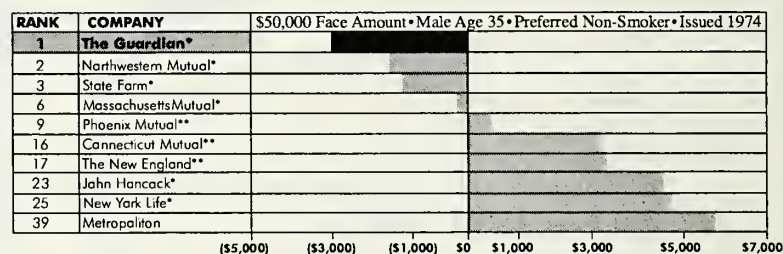
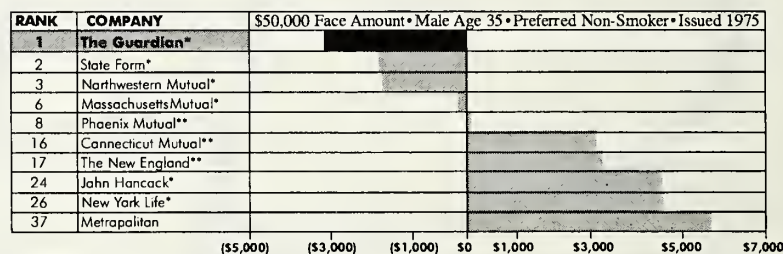
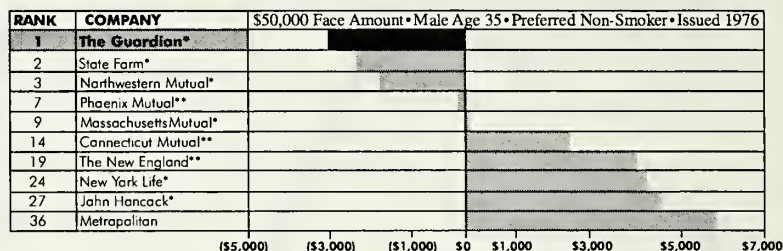
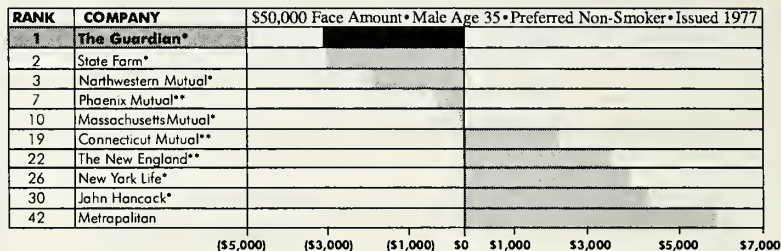
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George G. Miller, M.D.*

Aortic Involvement in Marfan's Syndrome

A 53-year-old female with Marfan's syndrome presented with atrial fibrillation and progressive congestive heart failure. Cardiac catheterization performed six months earlier revealed normal right heart pressures, moderate impairment of left ventricular systolic and diastolic function [ejection fraction 45%, left ventricular end diastolic pressure 30 mmHg (normal < 20mmHg)], angiographically normal coronary arteries, and moderately severe aortic insufficiency and mitral valve prolapse with regurgitation. At that time, the patient preferred medical management and was discharged home on a beta-blocker and arterial vasodilators.

At the time of admission, the patient was treated with diuretics, a beta-blocker, and a vasodilator. There was no electrocardiographic or enzymatic evidence of myocardial infarction. CT scans of the chest (figures 1 & 2), showed dilatation of the ascending aorta from the aortic root to the arch and downward to the diaphragmatic hiatus. The root measured 6cm. in diameter, the aortic arch 4cm, and the descending aorta 3cm. There was no evidence of a dissection.

Discussion

Etiology. Marfan's syndrome is an autosomal domi-

nant disorder (1/per 10,000) involving all races and ethnic groups.¹ The primary defect in Marfan's syndrome is in the microfibrils, components of the extracellular matrix. Microfibrils are the platform upon which elastin is deposited to form elastic fibers. Fragmentation

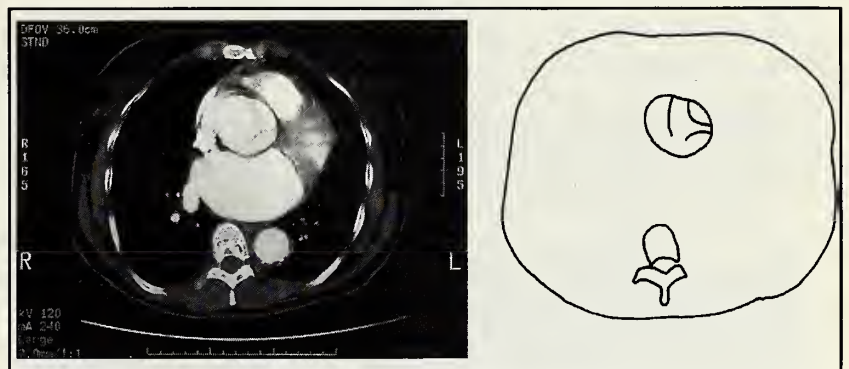


Figure 1: CT scan with contrast at the level immediately above the aortic valve showing dilatation of the aorta and aortic cusps. The left atrium is posterior, and the anterior structure slightly to the right is the right ventricle. The diagram on the right shows the three leaflets of the aortic valve.

and disorganization of elastic fibers in the aortic media are histologic markers (inappropriately called cystic medial necrosis) of Marfan's syndrome.

Pathophysiology and Natural History. The most common cardiovascular features of Marfan's syndrome are mitral valve prolapse and dilatation of the sinuses of Valsalva. Clinical manifestations include mitral and aortic regurgitation. Aortic dissection is a common etiology of death, which usually occurs in the 4th and 5th decades. The sinuses of Valsalva are often dilated

* Drs. Calandro, Talley and Miller are with the Division of Cardiology, Department of Internal Medicine at UAMS.

** Dr. Shah is head of Body CT and MRI with the Department of Radiology at UAMS.

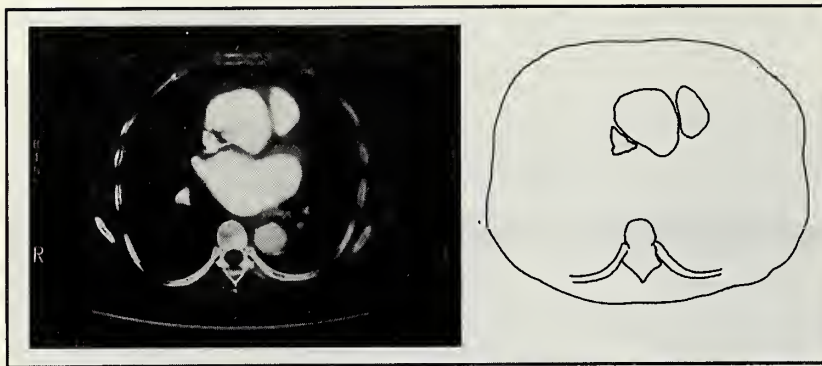


Figure 2: CT scan of the chest showing aneurysmal dilatation of the mid ascending aorta. The left atrium is posterior and the right ventricle is located to the right of the aorta.

at birth. Echocardiography is the preferred method to detect and monitor changes of aortic diameter. The risk of dissection increases with the size of the aorta and is infrequent when the aortic is less than 60 mm. in diameter.² Aortic regurgitation appears in adults when the ascending aorta reaches a diameter of 50mm.³

Treatment. The cardiovascular management of Marfan's syndrome is multifaceted and includes periodic echocardiographic examinations, endocarditis prophylaxis, and restriction of strenuous activity. Chronic administration of a beta-adrenergic blocker may reduce

the rate of aortic dilatation and the risk of aortic dissection.⁴ Timing of elective surgical intervention is uncertain; however, many surgeons have adopted the criteria of a 50 to 60 mm maximal ascending aortic root dimension for graft repair.⁵

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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Influenza Surveillance Update

Influenza surveillance occurs from October through May of the following year. CDC's influenza surveillance system is designed to:

1. Identify influenza as soon as it occurs in an area.
2. Identify influenza when it occurs in populations at high risk for influenza-related complications.
3. Determine which influenza strains are circulating and whether changes have occurred in the viruses.
4. Identify situations in which antiviral drugs might be used.
5. Measure the impact of influenza on illness, hospitalization and death.

Four major surveillance systems are used to accomplish these goals.

First, to monitor the occurrence of influenza each week, state health departments report the level of influenza activity in their states. When activity occurs, it is reported as sporadic, regional or widespread.

Sporadic activity means that individual cases of influenza, or influenza-like illness are reported, but no reports of outbreaks in places such as schools, nursing homes or other institutional settings have been received.

Regional activity means that outbreaks of influenza are occurring in geographic areas containing less than 50% of the state's population. A geographic area could be a city, county or district.

Widespread activity means that outbreaks are occurring in geographic areas representing more than 50% of the state's population.

A second surveillance system to monitor influenza involves approximately 150 family practice physicians across the country. They report the number of patients seen and hospitalized for an influenza-like illness or related complication within their practice week. This system is known as the Influenza Sentinel Physicians Surveillance Network.

A third surveillance system monitors pneumonia and influenza mortality. Each week, the vital records offices of 121 cities report the total number of death

certificates filed due to all causes for that week and the percentage of those for which pneumonia was identified as the underlying cause of death or for which influenza was mentioned in any position.

In the fourth surveillance system, 68 WHO collaborating virology laboratories throughout the U.S. monitor and report the strains of influenza viruses they have found each week.

Through its surveillance systems, the CDC develops a national picture of influenza virus activity, the geographic distribution of influenza strains, where outbreaks are occurring and the impact of influenza on different age groups.

During the influenza season, Arkansas Department of Health (ADH) personnel will be calling local physicians, schools, nursing homes and other institutional-type settings to help determine influenza activity in their area. Data obtained will be used to determine the weekly influenza activity level for Arkansas.

The ADH has distributed 50 influenza culture kits to each of our ten area offices. Physicians with symptomatic patients should contact their local county health units for influenza culture kits for strain identification. Once a strain has been identified, no further cultures are necessary in that county.

For more information concerning influenza in Arkansas, call the ADH, Communicable Diseases/Immunizations Division during normal business hours at (501) 661-2169.

Correction Notice

In *The Journal's* October issue under the State Health Watch section on page 226 in Table 1, "Influenza vaccine dosage, by age group," the dosage under the 3-8 years old group was reported to be 0.25 mL. It should be 0.50 mL. We apologize for any inconvenience.

Reported Cases of Selected Diseases in Arkansas Profile for September 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	133	197	241	116	153
Giardiasis	174	125	182	93	131
Shigellosis	180	107	176	93	176
Salmonellosis	338	366	455	248	338
Hepatitis A	187	364	500	477	663
Hepatitis B	50	74	93	62	83
Hepatitis C	2	7	7	NR	NR
HIB	0	0	0	0	1
Meningococcal Infections	30	30	35	27	39
Viral Meningitis	18	29	38	30	33
Ehrlichiosis	21	7	7	13	14
Lyme Disease	24	25	27	9	12
Rocky Mountain Spotted Fever	23	20	22	31	31
Tularemia	21	21	24	20	22
Measles	0	0	0	2	2
Mumps	1	1	1	6	6
Gonorrhea	N/A	N/A	5050	N/A	5437
Syphilis	N/A	N/A	706	N/A	1017
Legionellosis	0	1	1	6	8
Pertussis	40	12	14	57	59
Tuberculosis	143	142	225	159	271

NR Not reportable

STD data not currently available.

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

The 1997 Arkansas Medical Society Membership Directories are now available. **All physician-members should have already received one copy through the mail at no charge.** To order extra copies, or if you are not an AMS member and would like your own copy of the 1997 AMS Membership Directory, send a check or money order made payable to AMS in the amount of your purchase to: AMS, 1997 Membership Directory, P.O. Box 55088, Little Rock, AR 72215-5088. Be sure to include the name and address of who and where to mail your directory. The directories are \$50 each. With a purchase of 2 to 10, \$45 each; 11 or more, \$35 each.

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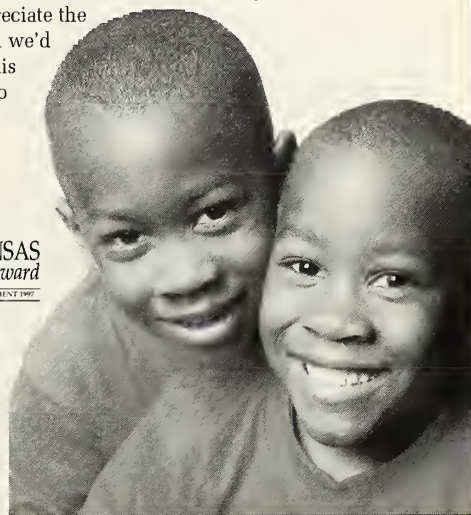
Arkansas Children's Hospital has just been recognized — again — for quality. This time it's the 1997 Arkansas Quality Achievement Award. While 72 organizations were recognized for their quality improvement processes, only 14 were honored at this level.

We appreciate the attention, and we'd like to take this opportunity to

thank our employees, volunteers, medical staff partners and board members, whose daily attention to quality made this possible. But at Arkansas Children's, we strive for quality in all that we do. We believe our emphasis on quality management shows — in a lot of little ways.



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Hurwitz, Mervyn Bernard, Obstetrics/Gynecology. Medical Education, University of The Witwatersrand, Medical School, Johannesburg, South Africa, 1960. Internship/Residency, Johannesburg Hospital South Africa, 1962/1966. Residency, Oxford England Radcliffe Infirmary, 1997.

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Endsley, Charollette Ann, Family Practice. Medical Education, UAMS, 1994. Internship/Residency, Northwest Arkansas Family Practice, Fayetteville, 1995/1997. Board pending.

LITTLE ROCK

Garner, William L., Obstetrics/Gynecology. Medical Education, Vanderbilt University School of Medi-

cine, Nashville, Tennessee, 1985. Internship/Residency, Biloxi, Mississippi, 1986/1989. Board certified.

Harrell, Robert Eugene, Jr., Emergency Medicine. UAMS, 1977. Internship/Residency, UAMS, 1978/1980. Board certified.

VAN BUREN

Thompson, Robert C., Orthopedics. Medical Education, John Hopkins University, Baltimore, Maryland, 1964. Internship/Residency, Union Memorial, Baltimore, Maryland, 1965/1966. Board certified.

OUT OF STATE

Lucy, Vincent Alan, Anesthesiology/Pain Management. Medical Education, UAMS, 1993. Internship, Scott & White (Texas A & M), Temple, Texas, 1994. Residency, UAMS, 1997. Board eligible.

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Al-Takroui, Hatem Arafat, Anesthesiology. Medical Education, Faculty of Medicine, University of Jordan, Amman, Jordan, 1994. Internship, Al-Bashir Hospital, Amman, Jordan, 1995. Residency, UAMS.

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Western Wildlife

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I wanted to thank everyone involved with this program. We had no one else to turn to and we were in desperate need of doctors and medications. Your program has helped us through a very difficult time.



Arkansas Health Care Access Foundation

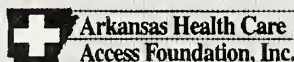
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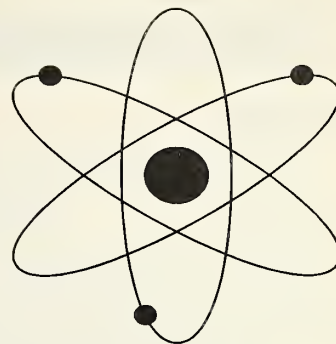
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Radiological Case of the Month

Steven R. Nokes, M.D., Editor

Authors

Steven R. Nokes, M.D.
Kenneth V. Robbins, M.D.
J.S. Sulieman, M.D.



History:

A 33-year-old female presented with acute left flank pain and tenderness. She had no history of renal stones or hematuria. A CT scan of the abdomen was performed (Figures 1 a-c), which prompted an arteriogram (Figure 2 a-c)

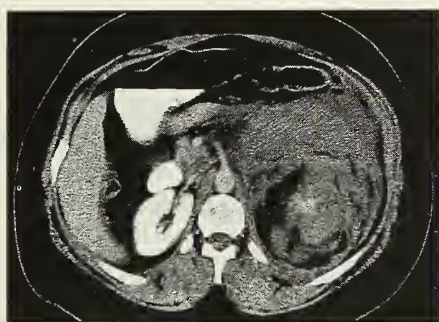


Figure 1A

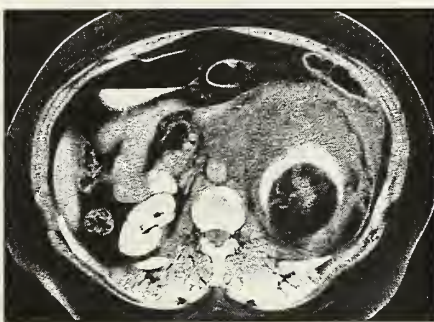


Figure 1B

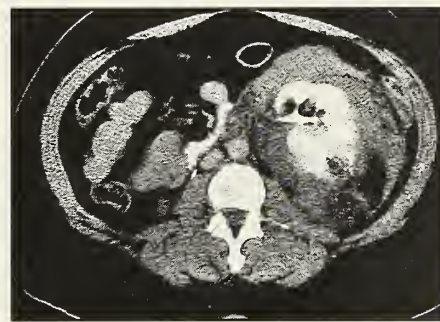


Figure 1C



Figure 2A

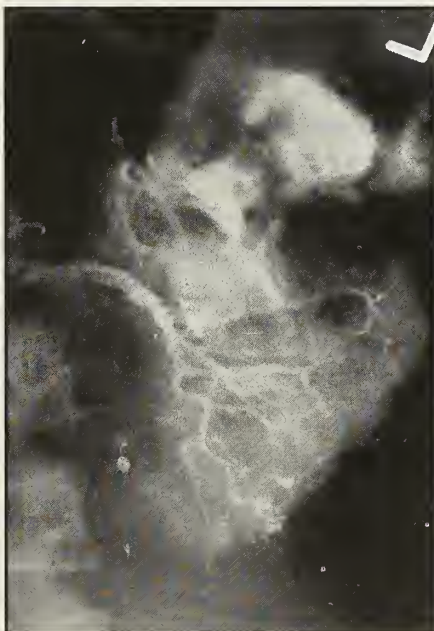


Figure 2B



Figure 2C

Figures:

Figure 1 (a-c) CT scan of the abdomen.

Figure 2 (a-c) Left renal arteriogram, early phase (a), late phase (b), selective upper pole injection (c)

Renal Angiomyolipoma with Perinephric Hemorrhage

Diagnosis:

Renal Angiomyolipoma with Perinephric Hemorrhage

Findings:

The CT scan demonstrates a large left perinephric hematoma surrounding the left kidney. A 10 cm mass is present in the upper pole of the kidney that contains abundant fat (Hounsfield units < -15), as well as a focal contrast extravasation (high density globular contrast enhancement centrally). The renal angiogram revealed abnormal irregular vessels both inferiorly and superiorly with active bleeding arising in the upper pole mass.

Discussion:

Angiomyolipoma (AML) is a choristoma composed of variable amounts of vascular, muscular and lipid material. Choristoma is preferred to hamartoma as fat is not normally found in the renal parenchyma. The blood vessels lack elastic tissue, are tortuous and thick walled, predisposing them to hemorrhage. Aneurysms occur in approximately 50% of cases.

While AML is the most common benign renal tumor, its incidence is only about 0.3% in the general population. It is usually found incidentally at US or CT. The second most common presentation is spontaneous hemorrhage as in our case. Hemorrhage is fairly common (10%) in lesions larger than 4 cm and uncommon in smaller AMLs.

Renal AMLs occur in an isolated form and in association with tuberous sclerosis (TS). TS is inherited as an autosomal dominant gene, but only 50% of patients have a family member with TS. AMLs occur in 50-80% of patients with TS. Patients without TS present in the fifth decade of life with a strong female predilection (8.1 F:M.). Individuals with TS are younger, with a mean age of 30 years, and a female to male ratio of 2:1.

Renal AMLs have a characteristic, but not pathognomonic appearance on US. They are the most echogenic renal neoplasm highly conspicuous against the normal hypoechoic renal background.

Unfortunately, many renal cell carcinomas (RCC) are also markedly hyperechoic (32-47%). When an echogenic renal mass is encountered at US, CT is necessary to confirm the presence of fat and exclude a RCC. CT must be performed without contrast, with a section thickness less than half the lesion size and demonstrate Hounsfield attenuation values of less than -15 HU to confidently diagnose AML.

Intratumoral fat has been reported in large RCCs that engulf perirenal fat and liposarcomas. This pitfall can be avoided by paying close attention to the surrounding structures. CT will often detect aneurysms within larger AMLs.

Angiography is useful to manage bleeding via transcatheter embolization. The tumor in this case was embolized, although the patient rebled and ultimately require a left nephrectomy.

References:

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Author: Kenneth V. Robbins, M.D., Radiology Consultants in Little Rock, AR.

Author: J. S. Suleiman, M.D., North Little Rock Urology Clinic in North Little Rock, AR.

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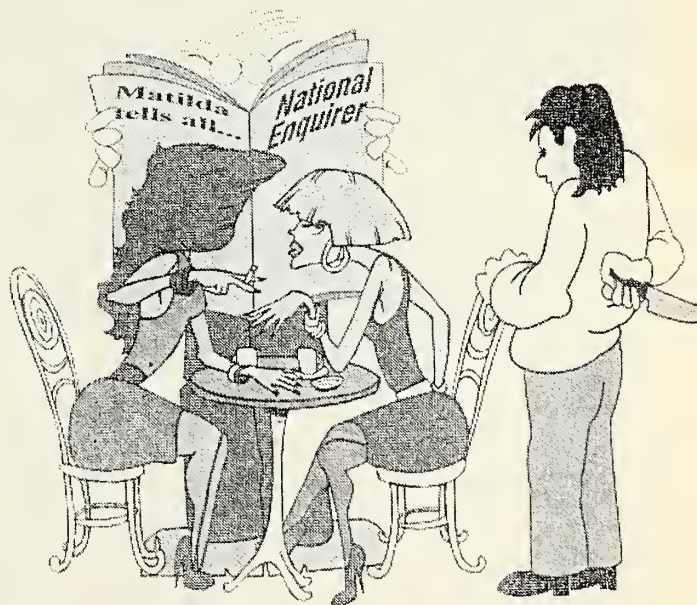
Arkansas Medical Society Annual Convention

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Thursday, April 2, 1998

7:00 p.m.

Local bookworm, Matilda Waylon, grew up to be a poisoned pen gossip columnist for the *National Enquirer* while her beauty queen sister, Mona Waylon, went from stardom at the community theater to stardom in Hollywood. When Matilda wrote a steamy tell-all book about her old hometown, it became a best seller and when the book was made into a hit movie, Mona was cast in the starring role. The whole town turns out for a banquet honoring the famous sisters and celebrating their well-deserved Academy Award. However, it turns out that **MURDER** is on the menu and when Detective Leslie Lynofire (formerly of the Secret Service) runs short on clues, he turns the searchlight of suspicion on . . . YOU!



Reservations will be required for the Dinner and Performance. Watch your mail for more information.

In Memoriam

Fitten Lamar McMillin, Sr., M.D.

Dr. Fitten Lamar McMillin died at his son's home in Vicksburg, Mississippi, on Wednesday, October 8, 1997. He was 90 years of age. His post graduate medical training was at the University of Arkansas Medical Center in Little Rock. Dr. McMillin practiced family medicine in Little for 37 years. He was a member of the AMS Fifty-Year Club.

He was preceded in death by his wife, Claudia Evelyn Howard McMillin. He is survived by his only child, F. Lamar McMillin, Jr., M.D.; daughter-in-law, Carol Lee Ellingson McMillin; and grandchildren, Ashley Elizabeth McMillin, David Lamar McMillin and Stephen Lee McMillin.

John H. Miller, M.D.

Dr. John H. Miller of Camden died October 9, 1997. Dr. Miller practiced medicine for 50 years in the Camden area and was a member of the AMS Fifty-Year Club. He was active in mission work, assisting in starting several churches in Camden and taking several volunteer medical trips to the San Blass Islands. Before coming to Camden, he was a medical missionary to Canton, China and was a political prisoner of war for a year at the beginning of World War II. He served in the Army as a field surgeon in the Pacific theater.

He is survived by his wife, Mary Jane McCuiston Miller; three children, Jane Ellen Rowland of Mulberry, John Miller, Jr., of Camden and Paul Miller of Lubbock, Texas; one brother; two sisters; eight grandchildren; and three great-grandchildren.



Things To Come

February 19-21, 1998

Cardiovascular Health: Coming Together for the 21st Century - A National Conference. Hyatt Regency Embarcadero Hotel, San Francisco, California. Sponsored by the National Heart, Lung, and Blood Institute; the Cardiovascular Disease Outreach, Resources, and Epidemiology Program; the University of California, San Francisco; and the California Cardiovascular Disease Prevention Coalition. For more information, call 415-476-5808.

February 21-23, 1998

13th Annual Mardi Gras Anesthesia Update in New Orleans. Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Department of Anesthesiology & Center for Continuing Education, Tulane University Medical Center. For more information, call 504-588-5466 or 1-800-588-5300.

February 22-27, 1998

Advances in Imaging: 1998. The Inn at Prospector Square, Park City, Utah. Sponsored by the Departments of Radiology at Tulane University Medical Center and Louisiana State University School of Medicine. For more information, call 504-588-5466 or 1-800-588-5300.

March 20-22, 1998

4th Annual Clinical Update on Management of the HIV-infected Patient - A Practical Approach for the Primary Care Practitioner. Crowne Plaza Hotel, New York, New York. Sponsored by the Center for Bio-Medical Communication, Inc, and the American Foundation of AIDS Research. For more information, call 201-385-8080.

March 26-29, 1998

National Kidney Foundation, Seventh Annual Spring Clinical Nephrology Meetings, Consultative Nephrology Program. Opryland Hotel, Nashville, Tennessee. Sponsored by the National Kidney Foundation. For more information, call 1-800-622-9010.

April 22-26, 1998

Critical Care Medicine 1998 - 12th Annual Review and Update. Crystal Gateway Marriott, Washington, DC. Endorsed by the Society of Critical Care Medicine and announced by the Center for Bio-Medical Communication, Inc. For more information, call 201-385-8080.

April 29 - May 2, 1998

International Conference on Physician Health. Victoria, British Columbia, Canada. Sponsored by the American Medical Association and the Canadian Medical Association. For more information, call 312-464-5073.

June 23, 1998 - July 5, 1998

12-Day Study Cruise on ms Rotterdam VI - Healthcare in the 21st Century. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored by the University at Sea Continuing Education, Inc. For more information, call 1-800-926-3775.

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The Arkansas Medical Society is a statewide organization representing all physicians, regardless of specialty, location or type of practice. The result is a statewide network united for the common good of the medical profession. The management and staff of the Arkansas Medical Society provide members with the best information and services available.

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Keeping Up

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

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Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Spring Sleep Seminar 1998, May 2 - 4, 1998, Arlington Resort Hotel and Spa, Hot Springs, Arkansas. For more information contact Bill Rivers, RPSGT at (501) 442-1272.

Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

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Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

Video conference. Thursday, November 20, 1997. 12 noon to 1:30 p.m. Topic: Outcomes Data from Nine State Carotid Endarterectomy Project, Outcomes from the Arkansas Provider Heart Cath Project, ESRD - New Project Information, Update on the Arkansas Foundation for Medical Care's Role in the new Medicaid Managed Care Program. Location: UAMS education building/AHEC's and Rural Hospital Affiliates. For more information, call 501-649-8501, ext. 203.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

First Annual Meeting of the American Hernia Society. February 6-8, 1998. Location: Miami Beach, FL. Hours of Category 1 credit offered: 19. Time and Fees to be announced. For more information, call 501-661-7962.

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.
Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES *continued*

Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN *Fetal Boards*, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas

EL DORADO-AHEC *continued*

Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
FP Journal Club, 2nd Monday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Locations vary. Dinner meeting.
Tumor Conference, 1st Wednesday & 3rd Friday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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Arkansas Medical Society Membership Roster

as of November 10, 1997

Denotes deceased member

Arkansas County

Burleson, Stan W.
Chavin, Michael A.
Daniel, Noble B. III
Hestir, John M.
Millar, Paul H. Jr.
Morgan, Jerry D.
Northcutt, Carl E.
Pritchard, Jack L.
Speer, Hoy B. Jr.
Speer, Marolyn N.
Tracy, W. Lee
Yelvington, Dennis B.

Ashley County

Burt, Frederick N.
Garcia, Luis F.
Gresham, Edward A.
Heder, Guy W.
Henry, William Jr.
McGowan, Patrick F.
Rankin, James D.
Salb, Robert L.
Spohn, Peter J.
Thompson, Barry V.
Toon, D. L.
Walsh, Benjamin J.

Baxter County

Baker, Robert L.
Barker, Monty
Barnes, Gregory
Beck, Dennis
Chatman, Ira D.
Cheney, Maxwell G.
Chock, Daniel P.
Chock, Helga E.
Clarke, James S.
Condrey, Yoland M.
Douglas, Donald S.
Dyer, William
Dykstra, Peter C.
Elders, John Gregory
Foster, Robert D.
Hagaman, Michael S.
Hardin, Philip R.
Johnson, Stacey M.
Kelley, Lawrence A.
Kerr, Robert L.

Kilgore, Kenneth M.
Knox, Thomas E.
Landrum, William
MacKercher, Peter A.
Massey, James Y.
McAlister, Matthew
McBride, Anthony D.
Neis, Paul R.
Price, Michael D.
Regnier, George G.
Rigler, Wilson F.
Robbins, Bruce
Roberts, David H.
Saltzman, Ben N.
Simons, Roger D.
Sneed, John W. Jr.
Stahl, Ray E. Jr.
Sward, David T.
TerKeurst, John
Trager, Marc
Tullis, Joe M.
Turner, Frederick C.
Wells, Gary
White, Richard B.
Wilbur, Paul F.
Wilson, Jack C.

Benton County

Addington, Alfred R.
Alderson, Roger
Allen, L. Barry
Allen, William M.
Arkins, James
Ball, Eugene H.
Becton, Paul Jr.
Benjamin, George
Benson, Stuart
Black, Randall Wayne
Bledsoe, James H.
Boden, Donna
Boozman, Fay W. III
Cantwell, Janet
Clemens, R. Dale
Clower, John D.
Cohagan, Donald L.
Cole, Randall E.
Compton, Neil E.
Costaldi, Mario E.
Cuchia, John

Dang, Minh-Tam
Day, Geoffrey
Deatherage, Joseph R.
Denman, David A.
Diacon, W. Lindley
Donnell, Hugh Garland
Donnell, Robert W.
Elkins, James P.
Ewart, David
Fioravanti, Bernard L.
Friesen, Douglas L.
Garrett, David C. III
Goss, Stephen
Halinski, David
Harmon, Harry M.
Henderson, Oscar L.
Hitt, Jerry L.
Hof, C. William
Holder, Robert E.
Horner, Glennon A.
Howard, K. Lamar
Hull, Robert R.
Huskins, James D.
Huskins, John A.
Jennings, William E.
Johnson, Christopher S.
Johnson, Royce Oliver II
Johnson, Steven P.
Jones, Nancy
Keane, Patrick K.
Lanier, Karen A.
Lewis, Rebecca C.
Marciniak, Douglas L.
McCollum, Edward #
McCollum, William
McKnight, William D.
Mertz, John Douglas
Mishkin, David
Moose, John I.
Mullins, Neil D.
Neaville, Gary A.
Nugent, Loyd
Panettiere, Frank J.
Pappas, John J.
Pearson, Richard N.
Pickens, James L.
Platt, Michael R.
Poemoceah, Kenneth M.
Puckett, Billy J.

Reese, Michael C.
Revard, Ronald
Ritz, Ralph C.
Rollow, John A.
Rolniak, Wallace A.
Springer, Dan J.
Steadman, Hunter M. Jr.
Stinnett, Charles H.
Stinnett, Scott G.
Stolzy, Sandra
Summerlin, William
Swaim, Terry J.
Swindell, William G.
Tate, Jeffrey
Treptow, Douglas
Turley, Jan T.
Warren, Grier D.
Weaver, Robert H.
Webb, William
Youngblood, Thomas

Boone County

Abdelaal, Ali F.
Ashe, Barbara
Baumwell, Sterling H.
Bell, Thomas Edward
Bennett, Joe D.
Brandon, Henry
Casey, Rick E.
Chambers, Carlton L. III
Chambers, Sue
Clary, Cathy
Collins, Kenneth
Cridler, James T.
Daniel, Charles D.
Dunaway, Geoffrey
Ferguson, Noel F.
Flanigan, Stevenson
Fowler, Ross E. #
Helmling, Robert L.
Hope, John M.
Kim, Hyewon
Klepper, Charles R.
Langston, James David
Langston, Robert H.
Langston, Thomas A.
Ledbetter, Charles A.
Leslie, Sharron J.
Maes, Stephen R.

Mahoney, Paul L. Jr.
 Maris, Mahlon O.
 Mears, Bill
 Miller, Robert Jr.
 Moffett, Shirolyn R.
 Padilla, Jose S. Jr.
 Reese, Ronald R.
 Scroggie, Daniel J.
 Scroggins, Sam J.
 Shapter, Janet B.
 Van Ore, Stevan Michael
 Vowell, Don R.
 Williams, Rhys A.

Bradley County

Chambers, F. David
 Coyle, Pamela
 Fort, David Jr.
 Foscue, David
 Marsh, James W.
 Pennington, Kerry F.
 Purvis, Kenneth W.
 Wharton, Joe H.
 Wynne, George F.

Carroll County

Card, Shannon R.
 Flake, William K.
 Horton, Charles
 Kresse, Gregory
 Martinson, Alice
 Murphy, Sean P.
 Nash, John R.
 Spann, Eric G.
 Spurgin, Randal Truman
 Stensby, Harold F.
 Taylor, Richard L.
 Wallace, Oliver
 Warner, Milo N.

Chicot County

Burge, John P.
 Kronfol, Ned
 Russell, John R.
 Smith, Major E.
 Thomas, H. W.
 Tuangsithtanon, T.
 Weaver, William J.
 Wilson, Thomas C.

Clark County

Anderson, P. R.
 Balay, John W.

Bryan, Yvon F.
 Dorman, Robert A.
 Elkins, John S.
 Ferrari, Victor J. Jr.
 Ford, Michael Ray
 Fullerton, John C. III
 Hagood, Noland Jr.
 Jansen, Mark
 Kennedy, Edmund
 Kluck, Carl Jr.
 Lowry, James L.
 Peeples, George R.
 Taylor, George D.
 Teed, Frank S.

Cleburne County

Ashabranner, Wesley J.
 Baldridge, Max
 Barnett, Michael
 Beasley, Harold
 Bivins, Franklin Jr.
 Lambert, James C.
 Quinn, Cynthia D.
 Sharp, Jan
 Stone, Timothy
 Thomas, Jerry L.
 Tvedten, Tom
 Vaughan, G. Lee

Columbia County

Alexander, John E. Sr.
 Alexander, John E. Jr.
 Baldwin, Ronald L.
 Dickson, D. Bud
 Evans, Matthew L.
 Farmer, John M.
 Griffin, Rodney L.
 Hester, Joe D.
 Hunter, Robert W. Jr. #
 Kelley, Charles W.
 McMahan, H. Scott
 Murphy, Fred Y.
 Parkman, Robert L. Jr.
 Pullig, Thomas A.
 Roberts, Franklin D.
 Ruff, John L. #
 Walker, Jack T.
 Wynn, Chester

Conway County

Hickey, Thomas H.
 Lipsmeyer, Keith M.
 Owens, Gastor B.
 Wells, Charles F.

Craighead-Poinsett County

Allen, John M.
 Alston, Herman D.
 Ameika, James A.
 Aston, J. Kenneth
 Awar, Ziad
 Ball, John
 Barker, Charles
 Basinger, James W.
 Beck, M. Lowery
 Berry, Donald M.
 Berry, Michael P.
 Blachly, Ronald J.
 Blaylock, Jerry D.
 Bolt, Michael E.
 Boyd, John T.
 Braden, Terence P. III
 Brown, Mark C.
 Burns, Richard G.
 Burns, Robert
 Camp, Michael
 Carpenter, Kennan
 Chan, Kenneth
 Clopton, Owen H. Jr.
 Cohen, Jeffrey O.
 Cohen, Robert S.
 Collins, Kevin Basil
 Cook, John
 Cranfill, Ben
 Cranfill, General L. III
 Crawley, Michael E.
 Day, Thomas Elkins
 Deem, Brent S.
 Degges, Russell D.
 Dickson, Glenn E.
 Dow, J. Timothy
 Dreckman, Lincoln A.
 Duke, Billy L. II
 Dunn, Charles C.
 Eddington, William R.
 Edwards, Carl B.
 Emerson, Steven
 Felts, Larry S.
 Fields, L. Brad
 Foote, John W.
 Forestiere, A. J.
 Garner, B. Matt
 Garner, William L.
 George, F. Joseph
 Golden, Stephen C.
 Gossett, Clarence E.
 Goza, Gary R.
 Green, Terri

Green, William Robert
 Guinn, Donald R.
 Hackbarth, Mark A.
 Hall, Ray H. Jr.
 Harvey, Bryan
 Hiers, Connie L.
 Hightower, Michael D.
 Hill, Roger D.
 Hogue, Ernest L.
 Hornbeck, Robert G.
 Houchin, Vonda
 Hubbard, William S.
 Hurst, William
 Isaacson, Michael L.
 James, Frank M.
 Jennings, R. Duke
 Jiu, John B.
 Johnson, John A.
 Johnson, Larry H.
 Johnson, Roehl W.
 Jones, K. Bruce
 Jones, R. J.
 Keisker, Henry W.
 Kelly, Scott M.
 Kemp, Charles E.
 Kostick, Richard A.
 Kroe, Donald J.
 Kyle, Richard
 Labor, Penny M.
 Labor, Phillips K.
 Landry, Robert J.
 Lawrence, Robert O. Jr.
 Leaird, Kimberly
 Ledbetter, Joseph W.
 Lepore, Diane G.
 Levinson, Mark
 Lewis, David M.
 Lunde, Stephen P.
 Luter, Dennis W.
 Lynch, John
 Mackey, Michael
 Maglothin, Douglas L.
 Mahon, Larry E.
 Marzewski, David
 McClurkan, Michael
 McDaniel, Craig A.
 McKee, Sanders
 Modelevsky, Aaron C.
 Monte, Marc
 Montgomery, Earl W.
 Moseley, Claiborne II
 Murrey, James F.
 Owen, Kip
 Owens, Ben Jr.

Parten, Dennis
 Patel, Dharmendra V.
 Peacock, Loverd
 Porter, Revel D.
 Price, Edwin F.
 Price, Herbert H. III
 Pryor, Shapard Jr.
 Ragland, Darrell G.
 Rainwater, W. T.
 Rauls, Stephen R.
 Ricca, Dallie
 Ricca, Gregory F.
 Richards, Fraser M.
 Rogers, James F.
 Rusher, Albert H. Jr.
 Sales, Joseph Hugh
 Sanders, James W.
 Sapiro, Gary S.
 Sauer, Curtis
 Savage, Patrick Joseph
 Schrantz, James L.
 Scriber, Ladd J.
 Scroggin, Carroll D. Jr.
 Shanlever, William T.
 Sifford, Mark
 Silas, David
 Skaug, Phyllis
 Skaug, Warren A.
 Smith, Floyd A. Jr.
 Smith, Michael J.
 Smith, Vestal B.
 Sneed, Jane
 Snodgrass, Scot J.
 Sparks, Barrett
 St Clair, John T. Jr.
 Stainton, Joseph C.
 Stainton, Robert M. Jr.
 Stallings, Joe H. Jr.
 Stank, Thomas M.
 Stevenson, Richard
 Stidman, Jeff
 Stripling, Mark C.
 Stroope, Henry F.
 Stubblefield, Sandra
 Stubblefield, William
 Swingle, Charles G.
 Tagupa, Eumar
 Taylor, Robert D.
 Tedder, Barry C.
 Tedder, Michael E.
 Thomas, Gary A.
 Tidwell, Kenneth Jr.
 Tonymon, Kenneth
 Tuck, Rebecca

Vines, Troy Alan
 Vollman, Don B. Jr.
 Walker, Meredith M.
 Warner, Robert L. Jr.
 Weingold, David
 White, Anthony T.
 Wiggins, H. Lynn
 Williams, E. Walden
 Wilson, Joe T. Jr.
 Wisdom, Garland
 Durwood
 Woloszyn, John
 Wood, Mark Cole
 Woodward, Gary W.
 Yates, Robert L.
 Young, William C. Jr.

Crawford County

Concepcion, Cecilia L.
 Darden, Lester R.
 Delk, John II
 Doyle, Edward
 Edds, Millard C.
 Edwards, Henry N.
 Flanagan, Mary Clare
 Floyd, Rebecca R.
 Garrett, Kipton L.
 Hazar, Derya B.
 Heaver, Holly M.
 Hefner, David P.
 Jennings, Charles A.
 Katz, Catherine
 Mason, Joe N.
 Ross, R. Wendell
 Sasser, L. Gordon III
 Schlabach, Ronald D.
 Sills, D. Bart
 Travis, A. Lawrence
 de Mondesert, Eduardo A.

Crittenden County

Adler, Justin Jr.
 Arnold, Sidney W.
 Barr, Marian
 Bryant, G. Edward Jr.
 Clemons, Mark
 DeRossitt, James P. III
 Deneke, Milton D.
 Evans, Loraine J.
 Ferguson, Scott
 Ferguson, T. Murray
 Ford, David W.
 Ford, Robert C. Jr.
 Goodman, David Aaron

Greene, Robert W. Jr.
 Gregory, Sandra L.
 Hanson, Charles C.
 Hernandez, Jacinto
 Huffstutter, Paul J.
 Kaplan, Bertram
 Kennedy, Keith B.
 L'Heureux, Guy J.
 Meredith, Samuel G. Jr.
 Miller, James L.
 Murray, Ian F.
 Nadeau, Kenneth R.
 Peeples, Chester W. Jr.
 Peeples, Guy Langley
 Pierce, Trent P.
 Rudorfer, Bennett Lewis
 Ruiz, Julio P.
 Sanchez, Ilsa
 Schoettle, Steve P.
 Shah, Ayesha S.
 Shrader, Floyd R.
 Smith, Bedford W.
 Smith, Mark M.
 Utley, L. Thomas
 Wah, John
 Ward-Jones, Susan
 Webb, Dan W.
 Westmoreland, Daniel
 Wright, William J.

Cross County

Beaton, J. Trent
 Beaton, Kenneth E.
 Bethell, Robert D.
 Burks, Willard G.
 Crain, Vance J.
 Ganelli, Ronald R.
 Hayes, Robert A. Jr.
 Jacobs, James R.

Dallas County

Delamore, John H.
 Howard, Don
 Nutt, Hugh A.
 Suphan, Neema A.

Desha County

Asemota, Steve
 Go, Peter Kong Hua
 Harris, Howard R.
 Masquil, Filipe
 Prosser, Robert L. III
 Scott, Robert B.

Turney, Lonnie R.
 Young, James E.

Drew County

Burns, Robert E.
 Busby, Arlee K.
 Gordon, Leonard F.
 Maxwell, Ralph M.
 Wallick, Paul A.
 Williams, William III
 Wilson, Harold F.

Faulkner County

Baker, David L.
 Beasley, Margaret D.
 Beasley, Thomas O.
 Bell, F. Keith
 Benafield, Robert B. #
 Bowlin, Randal
 Bowman, Gary
 Carter, D. Mike
 Collins, Mitchell L.
 Connaughton, Michael A.
 Cummins, J. Craig
 Daniel, Sam V.
 Dixon, Jerry W.
 Dodge, Ben
 Furlow, William C.
 Garrison, James S.
 Ghormley, J. Tod
 Gordy, L. Fred Jr.
 Gray, George T. III
 Hendrickson, Richard O. Jr.
 Hudson, Thomas F. III
 Huggins, David P.
 Jackson, Carole
 Landberg, Karl H.
 Landgren, Robert C.
 Lewis, Gregory
 Magie, Jimmie J.
 Martin, David A.
 McCarron, Robert
 McChristian, Paul L.
 Murphy, Kenneth
 Raney, Herschel D. Jr.
 Roberts, Thomas
 Ross, Rex W.
 Shaw, Collie B.
 Shirley, David C.
 Smith, John D.
 Smith, Lander A.
 St. Amour, Scott C.
 Stancil, Vicki
 Stone, Phillip

Taylor, Christopher T.
Throneberry, Bart
Wright, Gary David

Franklin County

Brooks, Homer E.
Gibbons, David L.
Lachowsky, John
Long, C. C.
Smith, John C.
Wilson, Robert

Garland County

Abraham, Jacob E.
Agee, Kimberly R.
Arthur, James M.
Aspell, Robert
Atherton, Lee G.
Bandy, Preston R.
Bearden, Jeffrey C.
Bennett, Keith
Bodemann, Diane
Bodemann, Donald R.
Bodemann, Michael C.
Bodemann, Stephen L.
Bohnen, Loren O.
Boos, Donald Jr.
Borg, Robert V.
Borland, Judy
Bracken, Ronald J.
Braley, Richard E.
Braun, James R.
Brunner, John H.
Burton, Frank M.
Burton, James F.
Campbell, James W.
Cates, Jack A.
Cenac, Joseph W. Jr.
Cunningham, Mark
Cupp, Cecil W. III
Cyrus, Scott S.
Davis, Kristie L.
Davis, Sheryl L.
Dodson, John W. Jr.
Dolan, Patrick III
Dunn, Richard W.
Dykman, Kathryn
Eisele, W. Martin
English, P. Timothy
Finch, Richard R.
Fine, B.D. Jr.
Fore, Robert W.
Fotioo, George J.

French, James H.
Gammill, Todd
Gardial, J. Richard
Gardner, James L.
Gerber, Allen D.
Gocio, Allan C.
Griffin, James E.
Haggard, John L.
Hale, Kevin D.
Harper, Edwin L.
Headrick, Daniel
Hechanova, D. M. Jr.
Heinemann, Fred M.
Heinemann, Phyllis E.
Henderson, Francis M.
Henson, Clinton H.
Herrold, Jeffrey W.
Hickman, Michael P.
Hill, H. Randy
Hill, Robert L.
Hitt, W. C. Jr.
Hollis, Thomas H.
Howe, H. Joe
Hughes, James A.
Hulse, Matthew
Humphreys, Robert P.
Hunter, Karla
Irwin, William G.
Jackson, Brian D.
Jackson, Haynes G.
Jackson, Michael S.
James, Janeen
Jayaraman, K. K.
Jayaraman, Vilasini D.
Jayasundera, Naomal S.
Johnson, Paulette S.
Johnson, Robert D.
Johnston, Gaither C.
Josef, Stanley
Kaler, Ron A.
Keadle, William R.
Kincheloe, A. Dale
Kleinhenz, Robert W.
Klugh, Walter G. Jr.
Koehn, Martin A.
Lane, Charles S. III
Larey, Mark E.
LeMay, Thomas B.
Lee, Allen R.
Lee, William R.
Lennon, Yates
Lyles, Fred
Martin, Jana
Martin, Joan B.

Maruthur, Gopakumar
Mashburn, William R.
Mathews, John S.
McCrary, Robert F. Jr.
McFarland, Louis R.
McMahan, James
Meek, Gary N.
Munos, Louis R.
Olive, Robert Jr.
Pai, Balakrishna
Pappas, Deno P.
Parkerson, Cecil W.
Peoples, Raymond E.
Pellegrino, Richard
Plaza, Jesus' A.
Powell, Brenda
Queen, George P.
Rainwater, W. Sloan
Rayburn, John
Reddy, Prabhakara K.
Robbins, Mark
Robert, Jon M.
Roda, Ferdinand T.
Rosenzweig, Joseph L.
Russell, Mark
Sanders, Hallman E.
Seifert, Kenneth A.
Sharma, Bimlendra
Shelby, Eugene M.
Shroff, Rajesh K.
Simpson, John B.
Slaton, G. Don
Sloand, Timothy Peter
Smith, Bruce L. Jr.
Smith, John W.
Smith, Phillip L.
Sorenson, Marney K.
Sorrels, John W.
Sousan, Leo
Springer, Melvin R. Jr.
Springer, William Y.
St. John, Melody
Stecker, Elton H. Jr.
Stecker, Rheeta M.
Stough, D. Bluford III
Stough, Dow B. IV
Tanganun, Priscilla L.
Tapley, David R.
Thomas, W. Al
Thompson, Thomas P. Jr.
Tucker, R. Paul
Vallery, Samuel W.
Vogel, Eric D.
Wallace, Thomas "Tom"

Walley, Luther R.
Warren, E. Taliaferro
Warren, William Jr.
Watermann, Eugene
Waters, Samuel
Webb, Timothy
Weyrich, Randall P.
Woodward, Philip A.
Wright, Charles C.
Young, Michael J.

Grant County

Covington, Brenda K.
Highsmith, William A.
Irvin, Jack M.
Paulk, Clyde D.
Winston, Scott D.

Greene-Clay County

Baker, Clark M.
Blair, Donald Waring
Boggs, Dwight F.
Bonner, J. Darrell
Brown, Howard Stanton
Bulkley, William J.
Burchfield, Samuel S.
Cagle, Roger E.
Collier, Jon D.
Crow, Asa A.
D'Anna, Richard E.
Duckworth, Hillard R.
Fonticiella, Adalberto
Fonticiella, Aldo V.
Hardcastle, R. Lowell
Hazzard, Marion P.
Hobby, George A.
Ilyas, Mohammad
Jackson, Ron
Kemp, Clarence
Laffoon, Scott L.
Lawson, J. Larry
Martin, Richard O.
Mitchell, Bennie E.
Morrison, Jimmy J.
Muse, Jerry L.
Page, Billie C.
Perry, Evelyn S.
Perry, John K.
Purcell, Donald I.
Sangster, William M.
Sellars, John R.
Shedd, Leonus L.
Sheridan, James G.

Shotts, C. Mack Jr.
Shotts, Vern Ann
Smith, Norman E.
Watson, Samuel D.
White, Robert B.
Williams, Dwight M.
Williams, Jacob M.
Yamada, Ronald R.

Hempstead County

Downs, Michael
Finley, George
Harris, Lowell O.
Holt, Forney G.
Johnson, David L.
McKenzie, Jim
Stevens, David G.
Wright, George H. #

Hot Spring County

Berry, Frederick B.
Bollen, A. Ray
Brashears, Larry B.
Burton, Bruce K.
Cobb, Russell W.
Ellis, C. Randolph
Highsmith, Vivian F.
Kersh, N. B.
Lumb, John C.
Peters, Claude F.
Tilley, Absalom
Vaughan, John A.
White, Bruce A.
White, Robert H.

Howard-Pike County

Dunn, Robert
Floyd, Mark A.
Gullett, A. Dale
Humphreys, T. J. Jr.
King, Joe D.
Martinazzo-Dunn, Anna
Patel, Madanmohan
Peebles, Samuel W.
Sayre, John
Sykes, Robert
Turbeville, James O.
Ward, Hiram T.
White, Phillip L.

Independence County

Alexander, William Steve
Allen, James D.
Angel, Jeff D.
Baker, John R.
Baker, Robert V.
Bates, Ronald J.
Beck, James F.
Bess, Lloyd G.
Brown, Hunter Lee
Brown, Verona T.
Cummins, Thomas
Davidson, Andy
Davidson, Dennis O.
Fowler, William
Goodin, William H. Jr.
Hatfield, Patrick M.
Hays, Sarah F.
Jeffrey, Jay R.
Johnson, Deborah A.
Jones, Edward J.
Jones, Edward T.
Joseph, Aubrey S.
Kearns, Harry
Ketz, Wesley J.
Lambert, John S.
Lytle, Jim E.
McClain, Charles M. Jr.
Melton, Clinton G.
Montgomery, F. Renee'
Moody, Lackey G.
Neaville, Gregory
O'Brien, Marcus D.
Piediscalzi, Nicholas
Scott, John G.
Simpson, Ronald
Slaughter, Bob L.
Sloan, Fredric J. II
Sutterfield, Terry F.
Taylor, Chaney W.
Taylor, Charles A.
Van Grouw, Richard
Waldrip, William J. III
Walton, Robert B.
Webster, Russell P.
Williams, Robin C.

Jackson County

Ashley, John D. Jr.
Chauhan, Mufiz A.
Dudley, Guilford M. III
Falwell, K. Wade

Frankum, Jerry M. Jr.
Fremming, Bret G.
Green, Roger L.
Hergenroeder, Paul J.
Hunt, Randall Evan
Jackson, Jabez Fenton Jr.
Junkin, A. Bruce
Molnar, Istvan
Poon, Hon K.
Reynolds, Roland C.
Snodgrass, Phillip A.
Young, Jack S. III

Jefferson County

Alexander, Lester T.
Ancalmo, Nelson
Anderson, Charles W.
Armstrong, Simmie Jr.
Atiq, Omar T.
Atkinson, Robbie
Atnip, Gwyn
Attwood, H.
Bell, Carl H. Jr.
Bitzer, Lon
Blackwell, Banks
Bracy, Calvin M.
Brooks, R. Teryl Jr.
Broughton, Stephen A.
Buckley, J. Wayne
Busby, John
Butler, Robert C.
Campbell, James C. Jr.
Carlton, Irvin L.
Cash, J. Steven
Cheek, Ben H.
Clark, Charles A.
Cook, J. Mitchell
Courtney, Willis Jr.
Crenshaw, John
Davis, Charles M.
Davis, Paul W.
Dedman, John D.
Del Giudice, Jose A.
Deneke, William
Dharamsey, Shabbir A.
Driskill, Angela
Duckworth, Thomas S.
Dunaway, Joseph D.
Fendley, Ann E.
Fendley, Claude E.
Fendley, Herbert F.
Flowers, Martha A.
Forestiere, Lee A.
Frigon, Jacquelyn S.

Garner, Kimberly
Green, Horace L.
Gullett, Robert R. Jr.
Harvey, Jerry L.
Herzog, John L. Sr.
Hughes, L. Milton
Hussain, Shafqat
Hutchison, E. L.
Hyman, Carl E.
Irwin, Raymond A. Jr.
Jacks, David C.
Jacks, Dennis
James, William J.
Jenkins, Bobby
Jenkins, Mary Ellen
Johnson, Horace
Jones, James III
Jurkovich, David F.
Justiss, Richard D.
King, Yum Y.
Kremp, Richard E.
Langston, Lloyd G.
Ligon, Ralph E.
Lim, William N.
Lindsey, James A.
Lum, Don
Lupo, David A.
Lytle, John O.
Mabry, Charles D.
Malik, Shamim A.
Marcus, Herschel
McDonald, Robert L.
McFarland, Mike S.
Meredith, William R.
Miller, Donald L.
Milligan, Monte C.
Mohiuddin, Mohammed J.
Mohyuddin, Adil
Ibrahim
Moin, Khurram
Morris, Harold J. #
Mulingtapang, Reynaldo F.
Newan, Michael
Nixon, David T.
Nixon, William R.
Nuckolls, J. William
Orange, Betty L.
Pearce, Malcolm B.
Pierce, J. R. Jr.
Pierce, Reid
Pierce, Ruston Y.
Pollard, J. Alan
Quimosing, Estelita M.
Redman, Anna T.

Reid, Lloyene B.
Rhode, Marvin C.
Roaf, Sterling A.
Roberson, George V. Jr.
Robinson, Paul F.
Rogers, Henry L.
Rook, Michael J.
Ross, Robert L.
Rowe, David E.
Samuel, Ferdinand K.
Shorts, Stephen D.
Simmons, Calvin R.
Simpson, P. B. Jr.
Smith, Paul L.
Stark, James
Stern, Howard S.
Sullenberger, A. G.
Tejada, Ruben
Townsend, Thomas E.
Tracy, C. Clyde
Trice, James
Walajahi, Fawad H.
Washington, Erma
Wilkins, Walter J. Jr.
Wineland, Herbert L.
Worrell, Aubrey M. Jr.

Johnson County

Goodman, James David
McKelvey, Richard
Pennington, Donald H.
Shrigley, Guy P.

Lafayette County

Harbin, Bradley
Lee, Willie J.

Lawrence County

Hughes, Joe E.
Joseph, Ralph F.
Lancaster, Ted S.
Quevillon, Robert D.
Spades, Sebastian A. III
Troxel, Roger

Lee County

Balke, Susan W.
Gray, Dwight W.
Ly, Duong N.
Waddy, Leon Jr.

Little River County

Covert, George K.

Kile, H. Lawson Jr.
Kleinschmidt, Kevin C.
Peacock, Norman W. Jr.
Shelton, Joseph Jr. #
Vorhease, James W.

Logan County

Ahmed, Sahibzada
Alexander, Eugene
Borklund, Maurice K.
Buckley, Douglas A.
Daniel, William R.
Enns, Wayne P.
Harbison, James D.
Hasan, Shahzad
Suguitan, Demetrio B. Jr.

Lonoke County

Abrams, Joe A.
Anderson, Leslie
Braswell, Thomas
Chapman, Jerry C. #
Elam, Garrett
Holmes, Byron E.
Inman, Fred C. Jr.
Mann, R. Jerry
Paslidis, Nick J.
Rochelle, Joe
Schumann, Gerald M.
Shurley, Floyd Jr.
Thomason, Steven L.
Valley, Marc A.
Wilcox, Linda G.

Miller County

Alkire, Carey
Andrews, A. E. Jr.
Bailey, Christopher A.
Barnes, Walter C. Jr.
Blackburn, Roy Manell
Blankenship, D. Michael
Burns, Billy R.
Campanini, D. Scott
Carlisle, David L.
Cook, Lewis C.
Craytor, Bret F.
Cutler, Otis
DeHaan, Jeffrey T.
Dildy, Edwin V. Jr.
Ditsch, Craig E.
Dodd, N. Leland
Dodge, John M.
Duncan, Donald L.

Eichler, Edward A. Jr.
Ford, John Suffern
Gabbie, Mark
Gillean, John A.
Graham, John
Green, R. Clark
Griffin, Nancy
Hall, Eric E.
Hillis, Thomas M.
Hollingsworth, Charles E. II
Hughes, A. Keith
Jean, Alan B.
Jones, John W.
Joyce, F. E.
Kittrell, James
Knowles, Stanley C.
Loe, Arlis W.
McGinnis, Robert S. Sr.
Melton, Charles L.
Morris, Howard
Newton, Norris L. Sr.
Newton, Norris L. Jr.
Nix, John E.
Norris, John A.
O'Banion, Dennis
Peebles, Larry M.
Robbins, Joseph
Robinson, Dianna L.
Rountree, Glen A.
Royal, Jack L.
Sarna, Paul D.
Sarrett, James
Schmidt, Howard
Shipp, G. Carl
Smith, Arnett D. Jr.
Smith, Christopher T.
Smolarz, Gregory J.
Solomon, J. Alan
Somerville, Patrick J.
Spence, Shanna
Stringfellow, Jerry B.
Tompkins, William Jr.
Tyler, Richard L.
Vereen, Lowell E.
Wade, Billy
Wilhelm, Frieda
Wilson, Thomas
Laurence
Wren, Herbert B.
Wren, Mark
Wright, Nathan L.
Yarbrough, Charles P.
Young, Mitchell

Mississippi County

Abraham, Anes Wiley
Abramson, Lawrence
Bell, Mary C.
Biggerstaff, Jerry
Brock, Charles C. Jr.
Cullom, Sumner R.
Fairley, Eldon
Fergus, R. Scott
Grissom, David B.
Hall, Leslie
Haynes, Max G.
Hester, Karen Calaway
Hester, Richard
Hubener, Louis F.
Hudson, James H.
Husted, G. Scott
Jacob, Salil G.
Jones, Herbert
Jones, Joe V.
Lin, Ching-Shan
LoCascio, Paul A.
Osborne, Merrill J.
Pollock, George D.
Rhodes, Joseph
Rodman, T. N.
Russell, James D.
Shahriari, Sia
Shaneyfelt, E. A.
Smith, Ronald D.
White, John Stephen
Williams, John S.
Ziebold, Christine S.

Monroe County

Campos, Amador
Collins, Linda
David, Neylon C. Jr.
Pham, Dac Tat
Pupsta, Benedict F.
Stone, Herd E. Jr.
Walker, Walter L.

Ouachita County

Abbott, Judy
Braden, Lawrence F.
Brunson, Milton
Crump, Mark R.
Daniel, William A.
Dedman, William D.
Feld, Sheldon M.
Floss, Robert
Fohn, Charles H.

Guthrie, James
Hopson, Deanna
Hout, Judson N.
Jameson, John B. Jr.
Kelly, Patricia
Kendall, Jerry R.
Martin, Dan
McFarland, Gale
Miller, John H. #
Mosley, David
Nunnally, Robert H.
Ozment, L. V.
Sanders, Cal R.
Shrestha, Bal Narayan
Thorne, Arthur E.

Phillips County

Athota, Prasad J.
Barrow, John H. Jr.
Bell, L. J. Patrick
Bell, L. J. Patrick II
Berger, Alfred A.
Epstein, S. Mitchell
Faulkner, Henry N.
Frederick, William
Ronald
Hall, Scott
McCarty, Charles P.
McCarty, Gordon E. Jr.
McDaniel, Marion A.
Miller, Robert D. Jr.
Paine, William T.
Patton, Francis M.
Rangaswami, Bharathi
Rangaswami,
Narayanaswami
Tucek, Ladd
Tukivakala, P. Reddy
Vasudevan, Kanaka
Vasudevan, P.
Webber, David L.
Winston, William II
Wise, James E. Jr.

Polk County

Brown, David P.
Finck, John Henry
Fried, David D.
Lochala, Richard
McClard, Helen
Mesko, John D.
Mielnick, Alina
Perry, Karen A.
Sosa, Humberto J.

Tinnesz, Thomas
Wood, John P.

Pope County

Ashcraft, Ted
Austin, Nathan
Bachman, David S.
Barron, William G.
Barton, A. Dale
Battles, Larry D.
Beavers, H. Kevin
Bell, Linda O.
Bell, Michael
Bell, Robert A.
Berner, Dennis W.
Birim, Patricia J.
Bradley, Stanley C.
Brown, Charles H.
Brown, William Bruce
Burgess, James G.
Callaway, Jody C.
Carter, James M.
Cloud, Joe A.
Crouch, James Jr.
Crumpler, Joe B. Jr.
Cunningham, James A.
Dunn, Donald L.
Ferris, Craig A.
Frais, Michael A.
Galloway, William W.
Gately, Stanley
Haines, Lynn
Hale, Jeffrey
Harden, V. Anthony
Harrison, Rick
Henderson, Vickie L.
Hendren, Mike
Hill, Donald F.
Hines, Cynthia C.
Hollabaugh, Denise
Honghiran, Ted
Hubach, Cindy
Jones, Charles Jr.
Kerin, Douglas
Khan, Gul Rukh
Killingsworth, Stephen M.
King, John W.
King, W. Ernest Jr.
Kolb, James M. Jr.
Kriesel, Ben J.
Lawrence, Frank M.
Lovell, Richard K. Sr.
Lowrey, Douglas H.
Massey, V. Rudolph

Mauch, E. Jane
May, Robert H. Jr.
McCraw, Barry W.
Meyer, Kelly H.
Miller, Mark E.
Monfee, Andrew M.
Murphy, David S.
Myers, J. Mark
New, Kenneth O.
Richison, George C.
Riddell, C. Michael
Riley, Don C.
Robertson, William T.
Soto, Sergio F.
Stolz, Gerald A. Jr.
Tapley, Thomas S.
Teeter, Stanley D.
Thurlby, W. Robert
Turner, Finley P. II
Turner, Kenneth B.
West, Boyce W.
White, Ronald
Wilkins, Charles F. Jr.
Williams, David M.
Williams, Thomas C.
Young, Sandra S.

Pulaski County

Abel, Lee C.
Abraham, Dana C.
Abraham, James H.
Abraham, James H. III
Ackerman, William E. III
Adametz, James
Adametz, John Sr.
Adametz, Kimberly
Adams, Christopher
Adamson, James
Alexander, Albert S.
Alford, T. Dale
Allen, Durward Jr.
Allen, John E. Jr.
Alston, Phillip
Amir, Jacob
Aquino, Al
Araoz, Carlos
Archer, Robert L.
Armstrong, Howard #
Arrington, Robert
Astle, Hal
Atha, Timothy C.
Atkinson, William Jr.
Baber, John C. Jr.
Baber, John T.

Backus, Joe T.
Bailey, H. A. Ted Jr.
Baker, Glen F.
Baker, John W.
Baker, Johnson
Baldwin, Maxwell R.
Ball, Charles W. Jr.
Baltz, Brad Patrick
Barber, Jeffrey
Barber, Laurie
Barclay, David
Bard, David S.
Bard, John L.
Barger, Denver L.
Barlow, Brian E.
Barnes, C. Lowry
Barnes, Reginald
Barnes, Robert W.
Barnett, David
Barnett, Troy F.
Barron, Edwin N. Jr.
Bartnicke, Benjamin J.
Barton, Gary
Baskin, Barry
Bates, Ramona L.
Bates, Stephen
Bauer, David
Bauer, F. Michael
Bauer, Frank M. Jr.
Bauman, David C.
Bayliss, John M.
Beadle, Beverly
Bearden, James R.
Beaton, J. Neal
Beau, Scott
Beck, Joseph II
Becquet, Norbert J.
Belknap, Melvin L.
Bell, Rex H.
Bennett, Eaton W. #
Bennett, F. Anthony Jr.
Benton, William
Berry, Robert L.
Bevans, David W. Jr.
Bienvenu, Gregory
Bienvenu, Harold G. III.
Bierle, Michael
Billie, James
Biondo, Raymond V.
Birkett, Ian McRae
Bishop, William B.
Biton, Victor
Blackshear, Jack L. Jr.
Blair, Susan

Blankenship, William F.	Calkins, Joe B. Jr.	Crews, J. Travis	Fiser, Robert H. Jr.
Blasier, R. Dale	Campbell, Gilbert S.	Crocker, Charles H.	Fiser, William P. Jr.
Boehm, Timothy	Campbell, James W.	Cross, J. B.	Fitzgerald, Charles
Boellner, Samuel W.	Caplinger, Kelsy J. III	Crow, Joe W.	Fitzhugh, A. Stuart
Boger, James E.	Capps, Dwight II	Crow, R. Lewis Jr.	Flack, James V. Jr.
Boop, Frederick	Carfagno, Jeffrey	Darwin, William G.	Flaming, Jay
Boop, Warren C. Jr.	Carle, Scott W.	Daugherty, Joe D.	Fletcher, Anthony
Bornhofen, John H.	Carson, Layne E.	Daugherty, John L.	Fletcher, Elizabeth D. #
Bost, Roger B.	Carter, Jerry L.	David, Alex	Fletcher, Thomas M.
Bourne, David E.	Carttar, Charles	Davie, Melanie	Florez, James P.
Bowen, W. Scott	Caruthers, Carol	Davila, David G.	Floyd, Bill G.
Bower, Charles M.	Caruthers, Samuel B. Jr.	Davis, Glenn R.	Ford, Barry G.
Boyd, Charles M.	Casali, Robert E.	Davis, J. Lynn	Forte, Judith L.
Bradburn, Curry B. Jr.	Cash, Darlene	Dean, David M.	Foster, Gil
Bradford, J. David	Casper, Robert B.	Dean, David P.	Fraiser, Lacy P.
Bradley, Joe F.	Casteel, Helen	Dean, Gilbert O.	France, Gene L.
Brainard, Jay O.	Cate, Chris M.	Deaton, C. William Jr.	Fraser, Eric A.
Bratton, Nita	Cathey, Janet	Deed, Ashley	Fravel, Jonathan F.
Bressinck, Renie E.	Cathey, Steven	Deer, Philip J. Jr.	Frazier, Cynthia
Brewer, Robert	Chai, Sandra	Deer, Philip James III	Frazier, G. Thomas
Brewer, Thomas E.	Chakales, Harold H.	Dennis, James L.	Freeman, Diane
Brimberry, Ronald K.	Chandler, Billy M.	DesLauriers, S. Killeen	Fuller, C. Dale
Brineman, John	Chandler, Kay H.	Dhaliwal, Harminder Singh	Fuller, C. James III
Brinkley, Roy A.	Chappell, Carol W.	Dickins, John R. E.	Fulmer, John M.
Brizzolara, A. J.	Cheairs, David B.	Dickins, Robert D. Jr.	Galbraith, Robert C.
Brizzolara, John Paul	Cheairs, John T.	Dillard, Daniel C.	Gardner, Guy F.
Broach, R. Fred	Chisholm, Dan P.	Diner, Bradley	Garner, William L.
Broadwater, John Ralph Jr.	Choate, Robert B.	Dixon, Keith A.	Garrett, Nina
Brown, Michael	Christian, John D.	Dodd, Doayne	Gettys, Joseph M. Jr.
Brown, Pamela S.	Christiansen, Stephen P.	Doncer, Richard P.	Gibbs, Mark
Brown, Randel	Christy, George W.	Doucet, Marlon J.	Giblin, John M.
Brown, Steven L.	Chudy, Amail	Douglas, Warren M.	Gibson, Gordon L.
Browning, Donald G.	Church, Marion M.	Downs, Ralph A.	Giglia, Anthony R. III
Browning, Stanley K.	Church, Michael	Dungan, William T.	Giles, Wilbur M.
Bruce, Thomas A.	Clark, J. Roger #	Dwyer, Gregory A.	Gillespie, A. Tharp
Bryan, James W. IV	Clark, Richard B.	Eans, Thomas L.	Gilliam, David
Buchanan, Francis R.	Clift, Steven A.	Easter, Rex M.	Gist, Charles C.
Buchanan, Gilbert A.	Clifton, Cliff	Edge, Otis H.	Glenn, Wayne B.
Buchman, Joseph A. #	Clogston, Charles W.	Edmiston, Frank G.	Glidden, Michael L.
Buchman, Joseph K.	Cobb, Jock S.	Eisenach, R. Jeffrey	Glover, Lawson E. Jr.
Bucolo, Anthony P.	Cockrill, H. Howard Jr.	English, Jim	Glover, W. Clyde
Buford, Joe L.	Cogburn, Bob E.	Evans, Billy	Golden, William E.
Burba, Alonzo R.	Colclasure, Joe B.	Evans, Samuel C.	Goldsmith, Geoffrey
Burger, Robert A.	Collins, David	Farmer, Joseph F.	Gosser, Bob L.
Burnett, Hugh F.	Collins, Gary James	Farque, Greg L.	Goza, George M. Jr.
Burnett, P. Susan	Collins, Kevin J.	Fawcett, Deborah Dee	Grant, Karen G.
Burrow, Dennis R.	Colwell, Karen Louise	Fernandez, Agustin	Green, Benny J.
Byrum, Jerry	Cone, John	Ferris, Ernest J.	Greenway, C. Don
Calcote, Robert A.	Cook, Timothy R.	Fewell, Ronald D.	Greenwood, Denise R.
Calderon, Vincent Jr.	Cope, Michael	Fielder, Charles R.	Greer, G. Stephen
Caldwell, Charles R.	Corbitt, Mary	Fields, Patrick R.	Greutter, John E. Jr.
Calhoon, J. Dale	Cornell, Paul J.	Finan, Barre F.	Griebel, Jack A. Jr.
Calhoun, Joseph D.	Coussens, David M.	Fincher, Robert L.	Grimes, H. Austin
Calhoun, Richard A.	Crawford, Cary M.	Fiser, Martin	Grissom, James R.

Guard, Peggy K.	Henry, D. Andrew	Jones, Robert D.	Leonard, Donald G.
Guggenheim, Frederick G.	Henry, G. Michael	Jones, Roy Steven	Leou, Frank J.
Guin, Jere D.	Henry, G. Morrison	Jones, S. Michael	Lewis, Derek
Hagans, James III	Henry, J. Charles	Jones, William N.	Lile, Henry A.
Hagler, James L.	Henry, J. Forrest Jr.	Jordan, F. Richard	Lincoln, Ben M.
Hahn, Herbert	Henry, Richard Y.	Jordan, Randy A.	Lipke, Jay M.
Hall, A. D.	Henry, William T.	Joseph, Ralph F. II	Loebl, Edward C.
Hall, A. David	Henson, Gregory N.	Joseph, William Frank	Logan, Charles W.
Hall, Gregory S.	Herbert, R. Wayne	Jouett, W. Ray	Love, Tommy L. Jr.
Hall, R. Whit	Herron, Jerry M.	Joyce, John W.	Lowe, Betty A.
Hamilton, George Jr.	Hickey, Joseph P.	Junkin, Ruth H.	Ludwig, Frank R.
Hampton, John R. III	Hicks, David C.	Kaemmerling, Raymond E.	Luttrell, Rex E.
Hankins, Edwin III	Hicks, David L.	Kahn, Alfred Jr.	Lyons, Virgle E. Jr.
Hanna, Ehab	Hixson, Marcia Lynn	Kamanda, Stella M.	Mabrey, William
Harber, Harley	Hodges, J. Timothy	Kane, James J.	Magie, Stephen K.
Hardberger, R. E.	Hodges, Steven C.	Keeran, Michael G.	Mallory, John A.
Hardin, Robert	Hoffmann, Thomas H.	Kellar, Stanley L.	Maloney, F. Patrick
Hardin, Ronald D.	Holland, Jay D.	Keller, Alfred W.	Maners, Ann
Harger, C. Harold	Holloway, J. Douglas	Keller, Kevin	Marable, Charles T.
Hargrove, Joe L.	Holt, Stephen	Kennedy, Charles H. #	Markland, Gary S.
Harper, Gary E.	Holton, Jerry C.	Kennedy, Eleanor E.	Marks, Stephen R.
Harrendorf, Cagle	Hopkins, Karmen	Kennedy, H. Frazier	Martin, Kenneth A.
Harrington, Gregory S.	Hough, Aubrey J. Jr.	Ketcham, Jeffrey	Martin, Richard H.
Harrington, Mariann	Houk, Richard	Key, J. Michael	Marvin, Peter
Harris, Donald R.	Houston, Samuel	Kilgore, Reed W.	Mason, J. Zachary
Harris, T. Stuart	Howell, Coburn S. Jr.	King, Michael T.	Mason, William L.
Harris, W. Turner	Hudec, Regina	King, W. David	Matchett, W. Jean
Harrison, A. Vale	Hughes, Ronald D.	Kittler, Fred J.	Matthews, Joseph W.
Harrison, Roy E.	Hundley, Randal F.	Kizziar, Jim C.	McAdoo, Hosea W. Jr.
Harrison, William	Hurlbut, Kimberly	Klein, E. F. "Bud" Jr.	McCarthy, Richard E.
Harshfield, David Lee Jr.	Hutchins, Laura	Klimberg, V. Suzanne	McConnell, John D.
Hart, Thomas M.	Hutchins, Steven W.	Knott, Patricia A.	McCoy, Julia M.
Harter, Scott	Hutson, Harold G.	Knox, Michael F.	McCracken, Gail Ann
Hatch, Allan B.	Ingram, Jim	Kolb, Agnes J.	McCracken, John
Hathcock, Stephen A.	Ironside, John	Kolb, W. Payton #	McCrary, George A.
Hauer-Jensen, Martin	Jackson, J. Presley	Koonce, Thomas W.	McCutcheon, Frank B. Jr.
Hawley, Harold B.	Jackson, Thomas	Kovaleski, Thomas M.	McDonald, James E.
Hayden, William F.	Jansen, G. Thomas	Kozlowski, Karen J.	McDonald, Judy
Hayes, J. Harry Jr.	Jefferson, Terry	Krulin, Gregory S.	McGowan, Robert Jr.
Hayes, Richard L.	Johnson, Anthony D.	Kulik, Steven A.	McGrew, Robert N.
Hayes, Sidney P.	Johnson, B. Richard	Kumpuris, Andrew G.	McKelvey, K. David
Haynes, W. Ducote	Johnson, Ben D.	Kumpuris, Dean	McKinney, Carl
Headstream, James W.	Johnson, Carl	Kumpuris, Frank G.	McKinnon, L. Jane
Heard, Adele	Johnson, Clifton R.	Kyle, Joan E.	McKnight, C. Allen
Hearnberger, H. Graves III	Johnson, Dianne Flowers	Kyser, J. Floyd	McLeane, Mark
Hearnberger, Henry G. Jr.	Johnson, M. Bruce	Laakman, Robert W.	McMahon, Robert M.
Hearnberger, John E.	Johnson, Philip H.	Lambert, Robert A.	McMillin, F. Lamar Sr. #
Hedges, Harold IV.	Johnston, Dale E.	Landers, James H.	McNair, James R.
Hedges, Harold H.	Johnston, Kenneth	Lane, John W.	McNee, Valerie
Hefley, Bill F.	Jones, Eugene	Lang, Nicholas P.	McPeak, Lisa
Hefley, William Jr.	Jones, Gail Reede	Langford, Timothy	Meacham, Donald F.
Henker, Fred O. III	Jones, Garry L.	Lehmberg, Robert W.	Meador, Annette Parker
Henry, C. Reid Jr.	Jones, John C.	Leibovich, Marvin	Meadors, Frederick
Henry, Charles R. Sr.	Jones, Kathleen C.	Leithiser, Richard Jr.	Meadors, John

Medlock, Rickey D.	Norton, Joseph A.	Raque, Carl J.	Seibert, Robert
Mellor, Roy II	Nowlin, James Bill	Ray, V. Gail	Selakovich, Walter G.
Mendelsohn, Lawrence A.	Nugent, Richard	Rector, Nancy F.	Sessions, Louis II
Metrailler, James A.	Oates, Gordon P.	Reding, David L.	Sheppard, Joseph
Metzer, W. Steve	Oddson, Terrence A.	Redman, John F.	Shields, Eddie
Meziere, Tom	Oglesby, Walter R.	Reed, Ewing C. Jr.	Shock, John P.
Miles, David A.	Osam, Patrick N.	Reese, William G.	Short, Harold K.
Miller, Forrest B. Jr.	Osteen, Paul	Reid, Gene W.	Shotts, Joseph
Miller, Raymond P. Sr.	Overacre, Robert	Rommel, Raymond	Shuffield, James
Milner, E. L.	Owen, Richard Jr.	Rice, Charles	Silvoso, Gerald R.
Mitchell, George K.	Owings, Richard	Rice, James Curtis	Silzer, Robert R.
Mizell, Philip	Ozment, Kerry	Rice, Robert L.	Simmons, Orman W.
Mizell, Walter S.	Padberg, Frank T.	Riddle, John F. Jr.	Sims, James M.
Moffett, T. Robert Jr.	Paddock, George	Riley, William H.	Singer, Peter
Money, Wandal D.	Padilla, Fernando	Ritchie, Robert Ross	Singleton, L. Gene
Montanez, Josue	Pahls, Wendell Lee	Robbins, Kenneth	Sinor Kennedy, Elicia
Montgomery, Lori	Pappas, James J.	Roberson, Michael C.	Sipes, Frank M.
Mooney, Donald K.	Parker, J. Mayne	Roberts, Kevin	Skokos, C. Kemp
Moore, Burton A.	Parker, Ray K.	Robinson, Matthew	Slater, John G. Jr.
Moore, J. Malcolm Jr.	Parkhurst, James	Rodgers, C. Dudley	Slaven, John E.
Moore, Michael	Parmley, Tim	Rodgers, Charles H.	Slayden, John E.
Moore, Rex N.	Parnell, Clifton L. III	Rooney, Thomas P.	Sloan, Eugene E.
Moore, Robert B.	Pastor, Randy	Rosenbaum, Carl A.	Sloan, Fay M.
Moore, Thomas C.	Paulus, Thomas E.	Ross, Ashley Sloan	Smart, Douglas F.
Morris, Barbara	Pearce, Charles E.	Ross, Cynthia	Smelz, Johnny
Morris, W. Dale	Peek, Richard	Ross, S. William	Smith, Aubrey C.
Morrison, Debra F.	Peeples, R. Earl	Rounsaville, Harry L.	Smith, Charles W.
Morse, James C.	Peters, John E.	Roy, F. Hampton	Smith, David E.
Morton, William J.	Peters, Phillip J.	Ruddell, Deanna N.	Smith, Douglas B.
Mulhollan, James S.	Petrus, Gary M.	Ruggles, Dwayne L.	Smith, G. Richard Jr.
Mumme, David	Petursson, Gissur J.	Russell, Anthony E.	Smith, James L.
Murphy, Bruce	Pevahouse, Joe	Russell, James B.	Smith, Purcell Jr.
Murphy, James E. Jr.	Phillips, Charles E.	Rutledge, William L.	Smith, Thomas J.
Murphy, Jeanne	Phillips, Hannah	Ryals, Rickey O.	Smith, Thomas W.
Murphy, Joseph	Pierce, William	Saer, Edward H. III	Smith, Tom
Murphy, Randolph	Pike, John D.	Safman, Bruce L.	Smith, Vestal B. Jr.
Murphy, Robert	Pledger, Norman R.	Samlaska, Susan K.	Snyder, Victor F.
Murphy, Tena	Pollard, Arlee E.	Sanders, Kelli Keene	Somers, A. Jack
Nagel, Fred G.	Pollock, Michael Marion	Santoro, Ian H.	Sorrells, R. Barry
Nance, Mel	Pope, David	Satre, Richard W.	Sotomora, Ricardo F.
Nash, John C.	Pope, Norton A.	Schlesinger, Scott	Squire, Arthur E. Jr.
Nelson, Alvah J. III	Porter, Robert Jr.	Michael	St Amour, Thomas E.
Nelson, Carl L.	Potts, Jerry L.	Schock, Charles C.	Stallings, James Walt
Nestrud, Richard M.	Power, Robert C.	Schratz, Bruce E.	Stanley, Joe P.
Newbern, D. Gordon	Prather, Jerry L.	Schroeder, George T.	Stanley, Robert
Newsum, Jon Kirby	Price, John G.	Schultz, John C.	Stephens, Wanda
Newton, Fred E.	Primack, Daren S.	Schwander, L. Howard	Stern, Scott J.
Nguyen, Duong	Pringos, Andrew A.	Schwankhaus, John D.	Sternberg, Jack J.
Nichols, Roger D. II	Pyle, Hoyte R. Jr.	Scott, Don I.	Stewart, Daryl
Nichols, Sandra D.	Quinn, Brian D.	Scott, Jane F.	Stewart, Marguerite R.
Nix, Richard A.	Quirk, J. Gerald	Scruggs, Jan W.	Stinnett, Thomas
Nokes, Steven	Rahman, Holly	Searcy, Robert M.	Stokes, B. Douglas
Norris, Lloyd P.	Ransom, John M.	Seguin-Calderon, Rosa Elia	Storeygard, Alan R.
Norton, George A.	Rapp, Richard J.	Seibert, Joanna J.	Stotts, John R.

Strauss, Mark A.
 Strode, Steven W.
 Stroope, George F.
 Studdard, James D.
 Sturdivant, Stephen
 Suen, James
 Sulieman, J. Samir
 Sullivan, Charles D.
 Sullivan, Jan R.
 Sundermann, Richard H.
 Talbert, Gary Eugene
 Talbert, Michael L.
 Tamas, David E.
 Tanner, James A.
 Taylor, David R.
 Taylor, Eugene H.
 Tedford, John G.
 Tharp, John G.
 Thomas, A. Henry
 Thomas, Peter O.
 Thompson, John R.
 Thompson, S. Berry Jr.
 Thompson, Steven M.
 Thomsen Hall, Kathleen
 Thorn, G. Max
 Thrower, Rufus
 Tilley, Steve
 Tolleson, Claudia
 Towbin, Eugene J.
 Tracy, Phillip A.
 Trantum, Bill L.
 Tressler, Samuel D. III
 Trigg, Laura
 Tseng, Jyi-Ming
 Tucker, R. Stephen
 Tucker, W. Everett
 Valentine, Robert G. Jr.
 Van Zandt, Janelle
 Vaughter, W. Roger
 Velez, L. Duane
 Vinsant, Kurtis
 Vogel, Robert G.
 Wade, William I. Jr.
 Wagoner, Jack
 Walker, Lee
 Walker, Ronald
 Walt, James R.
 Waner, Milton
 Ward, Harry P.
 Ward, Joseph P.
 Ward, Thomas
 Waterhouse, Michael H.
 Watkins, Charles J.
 Watkins, John Jr.

Watkins, John G. III
 Watkins, Julia
 Watkins, Larry S.
 Watson, Charles
 Watson, Daniel W.
 Watson, Vye B.
 Weber, Edward R.
 Weber, James R.
 Weber, Michael
 Weiss, David W.
 Weiss, Gerald N.
 Welch, Samuel Bradley
 Wellons, James A. Jr.
 Wende, Raymond A.
 Wenger, Carl E.
 Westbrook, Kent C.
 Westbrook, September
 Westerfield, Frank M. Jr.
 Westerfield, Robert
 White, Oba B.
 Wilkes, Elbert H.
 Wilkes, T. David I.
 Williams, Alonzo D.
 Williams, C. David
 Williams, G. Doyne Jr.
 Williams, Paul E.
 Williams, Ronald N.
 Williamson, Adrian III
 Wills, Pamela
 Wilson, Elaine
 Wilson, Frances C.
 Wilson, Frank J. Jr.
 Wilson, I. Dodd
 Wilson, James Michael
 Wilson, James W.
 Wilson, John L.
 Wilson, R. Sloan
 Wolverton, John
 Workman, W. Wayne
 Wortham, Thomas H.
 Wyatt, Richard A.
 Wylie, Paul
 Yamauchi, Terry
 Yaseen, Mohammad
 Yeager-Bock, Angy
 Yee, Suzanne
 Yocum, John
 Young, Douglas E.
 Young, Evelyn
 Yousuff, Sarah S.
 Zelnick, Paul
 Ziller, Stephen A. III
 Ziomek, Stanley

Randolph County

Baltz, Albert L.
 Barre, Hal S.
 Corcoran, Gavin R.
 DeClerk, Thomas
 Guntharp, George
 Holt, Danny B.
 Jansen, Andrew J. III
 Loop, Paul J.
 O'Connor, Brendan
 Scott, William W.
 Smith, Norman K.

Saline County

Albey, Mark
 Baber, Quin M.
 Beard, Michael R.
 Bethel, James
 Boyle, Ronald H.
 Burton, Charles R.
 Caldwell, David L.
 Cash, Ralph D.
 Cathcart, Evelyn
 Chaffin, Raines
 Coker, S. Dale
 Cooper, James B.
 Council, Robert A. Jr.
 Dockery, Melissa
 Duncan, J. Shelby
 Eaton, James M.
 Enderlin, Annette
 Gardner, Dan R.
 Harper, Donald
 Hill, Edward B.
 Hill, Howell V.
 Hogue, F. Paul
 Izard, Ralph S. Jr.
 Johnston, Greg
 Kirk, Marvin N. Jr.
 Martindale, J. L.
 Martindale, Mark A.
 Ramsay, Rex C. Jr.
 Schmidt, Michael J.
 Stanford, Royce Allan Jr.
 Steele, William L.
 Stewart, David L.
 Sudderth, Brian F.
 Taggart, Sam D.
 Thibault, Frank G. Jr.
 Thomas, Bill R.
 Thorn, Harvey Bell Jr.
 Tilley, Roger L.
 Vice, Mark

Viner, Donald L.
 Wagner, Taylor
 Watson, Kirk D.
 Woods, William K.
 Wright, John D.

Sebastian County

Acklin, Jimmy D.
 Al-Ghussain, Emad
 A.M.M.
 Albers, David G.
 Alberty, Joe
 Anderson, Paul
 Armstrong, Sinclair Jr.
 Asi, Wael
 Atkins, Jimmie G.
 Axelsen, Nils K.
 Bailey, Charles W.
 Baker, Max A.
 Balsara, Zubin
 Barker, Robert Jr.
 Barnes, L. Ford
 Barr, Marilyn
 Barry, James Jr.
 Barsik, Tamara
 Beachy, Allen L.
 Beene-Lowder, Hannah L.
 Benson, Eric Hamilton
 Berryhill, Richard E.
 Berumen, Mike
 Best, Timothy R.
 Bise, Roger N.
 Bodiford, Gary L.
 Bordeaux, Ronald A.
 Bouton, Michael S.
 Bradford, A. C.
 Brown, Byron L.
 Brown, James A.
 Brown, Richard
 Buie, James H.
 Builteman, James
 Burks, Deland
 Busby, J. David
 Cain, Martin
 Callaway, Michael
 Carson, Randall L.
 Cassady, Calvin R.
 Cesar, Luis Geraldo G.
 Chalfant, Charles
 Chester, Robert L.
 Cheyne, Thomas
 Coffman, Edwin L.
 Coleman, Michael D.
 Craft, Charles

- Crow, Neil E. Jr.
Culp, William C.
Davenport, O. Leo
Deaton, John M.
Deneke, James S.
Diment, David D.
Dorzab, Joe H.
Drolshagen, Leo F. III
Dudding, William F.
Edwards, Gary
Ellis, Homer G.
Ennen, Randy
Feder, Frederick P. Jr.
Feezell, Randall E.
Feild, T. A. III
Felker, Gary V.
Ferrell, Jeffrey
Fisher, Robert D.
Flanagan, A. Dean
Fleck, Randolph Peter
Fleck, Rebecca
Flippin, Tony A.
Florian, Thomas
Floyd, Charles H.
Francis, Darryl R. II
Gamble, Cory
Gardner, Kenneth
Gedosh, Edgar A.
Gill, James A.
Girkin, R. Gene
Glover, D. Bruce
Goodman, R. Cole Jr.
Goodman, Raymond C. Sr.
Griggs, William L. III
Gwartney, Michael P.
Hamilton, Lance
Hanley, Larry L.
Harmon, Pamela
Hathcock, Alfred B.
Hendrickson, Jon
Henry, James
Herren, Adrian L.
Hewett, Archie L.
Hewett, Mark Alan
Hoffman, John D.
Hoge, Marlin B.
Holmes, Williams C. Jr.
Hornberger, Evans Z. Jr.
Howell, James T.
Hughes, Robert P. Jr.
Hunton, David W.
Huskison, William T.
Ihmeidan, Ismail H.
Ingram, Ralph N.
- Irwin, Peter J.
Jaggers, Robert
Janes, Robert H. Jr.
Jefferson, Thomas C.
Jones, Greg T.
Kannout, Fareed
Kareus, John L.
Kelly, Thomas C.
Kelsey, J. F.
Keyashian, Mohsen
Kientz, John Jr.
Klopfenstein, Keith
Knight, William E.
Knox, Robert
Knubley, William A.
Kocher, David B.
Koenig, Albert S. Jr.
Kradel, R. Paul
Kramer, Ralph G.
Kutait, Kemal E.
Kyle, W. Lamar
Lambiotte, Louis O.
Landherr, Edwin
Landrum, Samuel E.
Lane, Charles S. Jr.
Lansford, Bryan
Lenington, Jerry O.
Lewis, George L.
Lilly, Ken E.
Little, Charles
Lockwood, Frank M.
Loyd, Gregory M.
MacDade, Albert D.
Magness, Jack L. Jr.
Manus, Stephen C.
Marsh, Michael A.
Martimbeau, Claude
Martin, Art B.
Martin, Rick
Masri, Hassan M.
Mauroner, Richard F.
McCarty, Joseph
McClain, Merle
McClanahan, J. David
McEwen, Stanley R.
McKinney, Robert
McMinimy, Donald
Meade, Arturo E.
Meador, Don M.
Mehl, John Kurt
Miller, Robert C.
Miller, Robert M.
Mings, Harold H.
Moore, Trudy J.
- Moore-Farrell, Laura
Mosley, Myra C.
Moulton, Everett C. Jr.
Moulton, Everett C. III
Mumme, Marvin E.
Murphy, Anne L.
Muylaert, Michel
Nassri, Louay K.
Nelson, Steve B.
Nichols, David R.
Niemann, Jeffrey M.
Nolewajka, Andre J.
O'Bryan, Robert K.
Olson, John D.
Paris, Charles H.
Parker, Joel E. Jr.
Parker, Thomas G.
Patrick, Donald L.
Payson, Tony A.
Pearce, Larry W.
Peluso, Francis
Pence, Eldon D. Jr.
Phillips, Don
Phillips, Kevin Clark
Phillips, Tonya
Pillstrom, Lawrence G.
Poe, McDonald Jr.
Poole, M. Louis
Porter, Neill C.
Post, James M.
Prewitt, Taylor A.
Price, Claire
Price, Lawrence C.
Rabideau, Dana P.
Raby, Paul L.
Raymond, Thomas H.
Reese, Valerie
Rivera, Ernesto
Robinson, Ronald P.
Rodgers, Brian H.
Russell, Rex D.
Sanders, Robert E.
Sanders, Robert V. III.
Saviers, Boyd M.
Schemel, William H.
Schkade, Paul A.
Schmitz, James
Schroeder, Cygnet
Schwarz, Julio
Schwarz, Paul R.
Seffense, Stephen J.
Seiter, Kenneth
Shahbandar, A. B.
Sherrill, William M. Jr.
- Short, Bradley Mark
Smith, Kent
Smith, Terrald J.
Snider, James R.
St. Clair, Kevin
Standefer, J. Michael
Stanton, William B.
Stewart, Jerry R.
Stewart, John B.
Still, Eugene F. II
Stillwell, Mark
Studt, James
Swicegood, John R.
Taft, Eileen
Taft, Eric
Teeter, Mark
Thompson, J. Kenneth
Thompson, Robert J.
Tinsman, Thomas
Tisdale, Bernard Alvan
Torres, Stephen
Turner, William F.
Van Asche, Christopher
Vanderpool, Roy E.
Vernon, Rowland P. Jr.
Waack, Timothy
Wallace, Kenneth K.
Webb, William K.
Weisse, John J.
Wells, John D.
Westbrook, Michael R.
Westermann, Norman F.
Whiteside, Edwin
Wikman, John H.
Williams, Carl L.
Wills, Paul I.
Wilson, Morton C.
Wolfe, Michael S.
Woods, Leon P.
Woodson, Alexa
Woodson, Mark
Zufari, Munir M.
- Sevier County**
Buffington, Mike
Couture, Susan E.
Hoyt, Jonathan
Jones, Charles N.
Jones, Thomas
Stearns, David E.
Vogan, Cheryl L.
Wilson, Timothy

St. Francis County

Collins, E. Morgan Jr.
Conner, George
Fong, Fun Hung
Guillermo, Enrique C.
Hammons, Edward P.
Hashmi, Shakeb
Healy, Richard O.
Iskander, Henein
Kumar, Sudhir
Lopez, Ramon E.
McDonald, Donald L.
Meredith, James Jr.
Patton, W. Curtis
Salvador, Ester Arejola
Schwartz, Frank R.

Tri County

Arnold, Carl
Arnold, Griffin II
Bozeman, Jim G.
Campos, Louis
Grasse, A. Meryl
Gupta, Atul
Jackson, George W.
Krygier, Albin J.
Lane, Robert C.
Moody, Michael N.
Relyea, William V.
Tatum, Harold M.
Tucker, Charles L.
Varela, Charles D.
Wright, Donald

Union County

Anzalone, Gary
Arceneaux, Matt
Barenberg, Andrew
Bevill, Gary L.
Booker, J. Gregory
Bowman, Raymond N.
Bryant, D'Orsay III
Callaway, Matthew Dates
Carroll, Peter J.
Cyphers, Charles D.
Daniels, C. Dwayne
Davis, Richard K.
Deere, Joy
Dietzen, Richard E.
Dixon, R. Mark
Dougherty, Bert
Duzan, Kenneth R.
Elliott, Wayne G.

Ellis, Jacob P.
Forward, Robert B.
Fraser, David B.
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Jones, Steve A.
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Lucas, John J.
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Ong, Tie S.
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Harris, Murray
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 Thomas, Joanna M.
 Thorn, Garland M. Jr.
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 Yates, Terrence

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Yell County

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 Hartman, Raymond P.
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 Hodges, Jerry F.
 Isely, William A. Jr.
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 Reddy, Krishna
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 Robinson, Nancy
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 Rodriguez, Paul L.
 Rogers, Marc
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 Schaefer, George
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 Shaver, Robert
 Sheikha, Mouhammed K.
 Shewmake, Kristopher B.
 Shock, Melessa
 Short, Luke H.
 Shrieve, Dennis Charles
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 Singhal, Sanjeev Kumar
 Sites, Terry Jay
 Slezak, James
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 Smith, Samuel D.
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 Zangari, Maurizio
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 Devabhaktuni, Venu G.
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Gordon, Gayle	Holmes, David G.	Leek, Grif A.	Morgan, Kelly J.
Govindarajan,	Holmes, RonaBeth R.	Leung, Rey A.	Mukunyadzi, Perkins
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Guevara, Doyle P.	Huey, Sandra S.	Lowery, Lisa	Nowell, Becky A.
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Gungor, Anil	Hutcheson, James	Lucas, Shauna L.	Ochoa, Eduardo R. Jr.
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Gunther, Bernadette A.	Iqbal, Imran	Maddock, Thomas J.	Palmer, Hal
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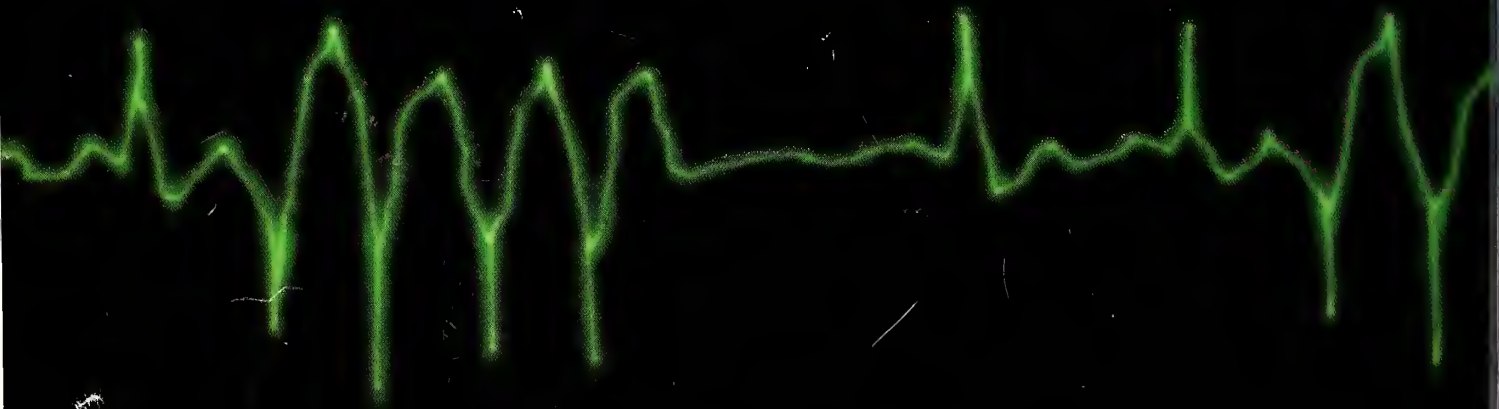


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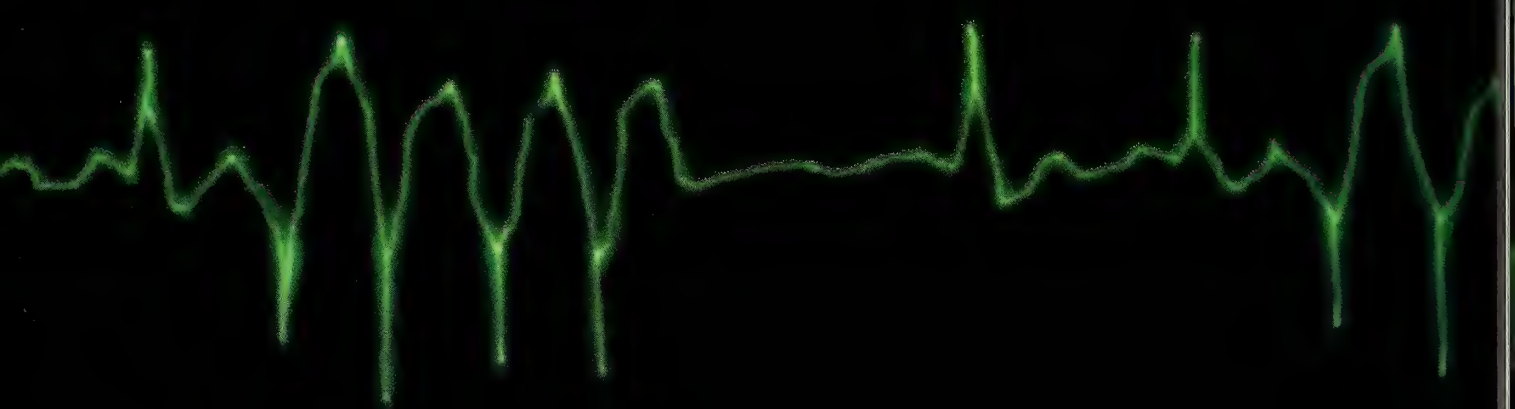
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Cover photo, taken in the Ozark Mountains, was provided by the Arkansas Department of Parks & Tourism.

Striving to Improve

Samuel E. Landrum, M.D., F.A.C.S.*

The article by Dr. Steven Thomason, titled "*The Value of Measuring Practice Patterns*," in this issue of *The Journal* deals with a topic that is relatively new as something that relates to better service to patients. We have for years reviewed issues about concerns of quality care. Usually these were structured about patients recently treated who may have had an undesirable result. Discussion with the involved staff was somewhat critical in the past and more recently became educational or informative. However, it is a new idea that patterns of care for a group or groups of patients are to be reviewed.

Frankly, it never struck me well to talk about treating a group; I was always thinking that I treated patients one at a time rather than a group. I didn't know how to treat a group. It reminded me of military induction physicals when potential recruits lined up, and everyone was checked for hernias or other defects as their anatomy was presented in a row.

My thinking is changing for many reasons. Actually, I had thought of patients in groups. For colon resections, discharge in ten days after the operation was my goal until President Reagan was discharged seven days post-operative following a partial colectomy. What happened? Thereafter, most of the patients that I resect are going home on the seventh post-op day or perhaps sooner. Similarly, the four days we had patients in the hospital being prepared for colon operations during my residency are now reduced to one or none at all. So patients now get to have seven more days at home in connection with this common operation.

Measuring various aspects of our practice patterns can help us all care for people better if we get good measurements of the right things. It implies that we think hard about what tests in which sequence will help us reach a diagnosis not readily achieved by competent history taking and physical examination. The novice physician seems always to order more lab work

or other tests than a seasoned one. Frequently, when discussing this on rounds with residents, I remind them that I like for the patient to have enough money left to pay me rather than have spent it all on unneeded tests.

There are endless examples all of us can relate similar to the changes in practice patterns that have been mentioned. Much change has already occurred, and much more will to enable our citizens to maintain or regain good health. These changes can be brought about by individual practitioners or those in groups. Additionally, enlisting the help of nurses, physical therapists, health educators, and the full array of allied health professionals will make these changes come about with benefit to patients.

The four major diagnoses where better patterns of practice can make the biggest reductions of cost are congestive heart failure, joint replacements, asthma, and diabetes. Strokes and cancer are close behind. These account for a huge percentage of Medicare expenses to hospitals. For instance, getting physical therapy started post-op following hip replacement and having the therapist continue seeing the patient at home has been found to permit discharge much earlier without increasing complications and with greater patient satisfaction. Who wouldn't rather sleep in their own home than in a noisy hospital?

Home visits by nurses to assure that cardiac patients stay on their regimen will decrease the frequent returns for this group to the acute hospital bed. Educating patients about diabetes and their care and education for asthmatic patients will reduce the amount spent for their returns to acute care.

These thoughts are simply to suggest that we get busier changing our attitude and then our approach to how we practice. Certainly we realize that no longer can we have no concern for the expenses our individual patterns of practice impose upon our patients and those who pay for their care. And it is of substantial importance that we embrace a cooperative attitude with others who care for patients and offer many helpful suggestions in this endeavor.

* Dr. Landrum is affiliated with Holt-Krock Clinic in Fort Smith and is a member of the editorial board for *The Journal of the Arkansas Medical Society*.

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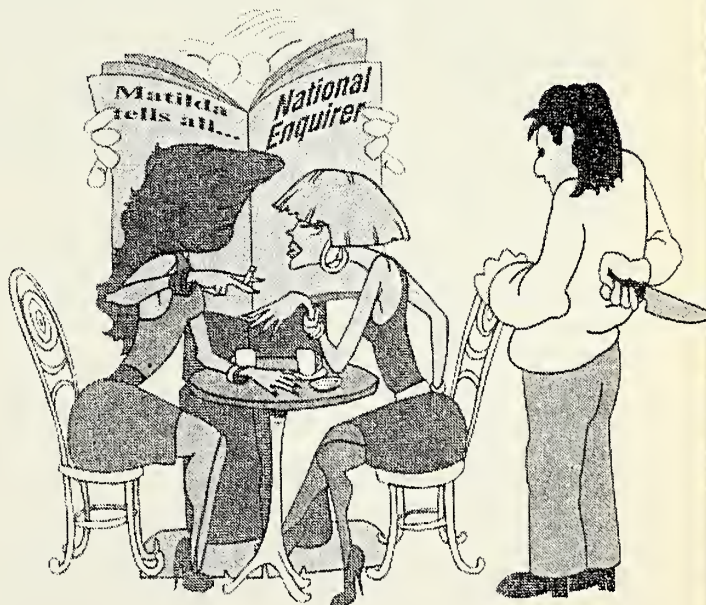
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7:00 p.m.

Local bookworm, Matilda Waylon, grew up to be a poisoned pen gossip columnist for the *National Enquirer* while her beauty queen sister, Mona Waylon, went from stardom at the community theater to stardom in Hollywood. When Matilda wrote a steamy tell-all book about her old hometown, it became a best seller and when the book was made into a hit movie, Mona was cast in the starring role. The whole town turns out for a banquet honoring the famous sisters and celebrating their well-deserved Academy Award. However, it turns out that **MURDER** is on the menu and when Detective Leslie Lynofire (formerly of the Secret Service) runs short on clues, he turns the searchlight of suspicion on . . . YOU!



Reservations will be required for the Dinner and Performance. Watch your mail for more information.

Medicine in the News

Health Care Access Foundation

As of December 1, 1997, the Arkansas Health Care Access Foundation has provided free medical service to 13,323 medically indigent persons, received 25,498 applications and enrolled 49,713 persons. This program has 1,897 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Breast & Cervical Cancer Report from ADH

How Many Women Get Breast Cancer? Breast cancer is the most commonly diagnosed cancer among women in the United States. Nationwide, an estimated 180,200 new cases will be diagnosed in 1997 and 43,900 women will die from the disease.¹ In Arkansas, the breast cancer mortality rate, 23.4%, was ranked 47 in the U.S.²

Recent declines in breast cancer mortality among white women suggest that improvements in the early detection and treatment of breast cancer are having a beneficial effect. However, disparities in the rate among racial and ethnic groups are indicative of differences in access to screening, early detection, treatment, follow-up and supportive care.³

What are the Known Risk Factors for Breast Cancer?

Age - The risk of breast cancer increases as a woman gets older. About 80% of breast cancers occur in women aged 50 and older.

Family History - The risk of getting breast cancer increases for a woman whose mother, sister, daughter, or two or more close relatives, such as cousins, have had the disease.

Personal History - Women who have had breast cancer may develop it again. Women with a history of certain types of breast disease (not cancer, but a condition that may predispose them to cancer) are also at increased risk.

Other Risk Factors - include having a first child after 30, or never having children. Current research is investigating the roles of hormone replacement therapy, diet, and alcohol use.⁴

How Many Women Get Mammograms? Arkansas Women Ages 40-49: 57.3% received a mammogram in the past two years. Arkansas Women Ages 50-64: 63.2% received a mammogram in the past two years. Arkansas Women Ages 65 and older: 59.7% received a mammogram in the past two years. Between 1991 and 1995, the percent of Arkansas women 50 and older who had a mammogram in past two years increased from 49.8% to 61.3%.

Routine Screening Recommendations - The National

Cancer Institute recommends that mammography screening should begin at age 40 and be repeated every one to two years. Women should discuss their individual pattern of screening with their physician. In addition to regular mammograms, women should have a regular clinical breast examination by a health care provider to search for abnormalities in the breast.⁵

National Breast and Cervical Cancer Early Detection Program - The Breast and Cervical Cancer Mortality Prevention Act of 1990 authorized CDC to implement a national program to ensure that every woman for whom it is deemed appropriate receives regular screening for breast and cervical cancers, prompt follow-up if necessary, and assurance that the tests are performed in accordance with current recommendations for quality assurance.

In Fiscal Year 1997, CDC entered into the seventh year of this landmark national program that brings critical breast and cervical cancer screening services to under-served women, including older women, women with low income, uninsured or underinsured women, or women of racial/ethnic minority groups. More than 1.3 million screening tests have been performed since the program began.

In 1995, the Arkansas Department of Health entered into a five-year agreement with the Centers for Disease Control and Prevention in accordance with Public Law 101-354, to provide comprehensive breast and cervical cancer control services. Services which include a Pap smear, clinical breast exam, mammogram referral, health education, follow-up, and referral are offered statewide to low-income women over age 50. Women may enroll in the program at every county health department, Community Health Center, Area Health Education Center and five primary care clinics. There are currently 46 mammography facilities, 65 breast surgeons, and 11 colposcopy providers participating in the program.

Six thousand two hundred eighty women have been enrolled in the program with 1,617 (45%) returning for annual re-screening. Approximately 15,000 screening and diagnostic tests have been funded through the program since it began. The abnormal mammogram rate is 13% (1,361). Of those, 1,244 (92%) have completed follow-up. The abnormal Pap smear rate is 5% (214). Of those, 198 (92.6%) have completed follow-up. Sixty-five breast cancers and 5 cervical cancers have been detected. The following is a breakdown of breast cancers by stage: Carcinoma-in-situ, 2; Stage I, 20; Stage II, 18; Stage III, 9; Stage IV, 1; and Unknown, 15.

The Breast and Cervical Cancer Control Program

(BCCCP) collaborates with other state agencies and professional, state and local, voluntary, and consumer organizations. Four key partners for outreach are YWCA Encore Plus, the American Cancer Society, The Witness Project, and the Arkansas Chapter of the Susan G. Komen Breast Cancer Foundation. The Arkansas Health Care Access Foundation has been the main provider of diagnostic follow-up services for women with abnormal results. The Arkansas Cancer Coalition spearheaded a successful legislative initiative, "The Breast Cancer Act of 1997." The Act was signed into law on March 11, 1997. Four million dollars funded by State Revenues with back-up funding from tobacco tax will provide breast cancer screening, diagnosis, treatment, and research. The state funding will complement the federally funded Breast and Cervical Cancer Control program to ensure a timely diagnosis and treatment for eligible Arkansas women. Increased community involvement and effective partnership development is the key to early detection of breast and cervical cancer and decreased burden from these diseases.

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2. Incidence data from North American Association of Central Cancer Registries, *Cancer in North America, 1989-1993*. Mortality data from SEER Cancer Statistics Review 1973-1994.
3. National Cancer Institute. *Cancer Facts: NCI Reports Improvements in Breast Cancer Death Rate*. <http://www.wicic.nci.nih.gov/ncifact/FS6.25.htm>.
4. National Breast Cancer Awareness Month. *Breast Cancer: Questions and Answers about Mammography*.
5. Eastman P. NCI Adopts New Mammography Screening Guidelines. *JNCI*, 89: 538-9, 1997.

Mammography utilization data are from the Behavioral Risk Factor Surveillance System, a continuous telephone survey of the adult population in Arkansas supported in part by CDC and administered by the Arkansas Department of Health. Data analysis was provided by the Behavioral Surveillance Branch, National Center for Chronic Disease Prevention and Health Promotion, CDC.

For more information about Breast and Cervical Cancer, contact Dianne Crippen, R.N., at 501-661-2636.

Information provided by the Arkansas Dept. of Health.

"Mad Cow" Disease Has Been Passed to Humans

The neurodegenerative diseases called spongiform encephalopathies are usually caused by genetic errors. The Nobel Prize in 1996 was awarded for the discovery of a transmissible spongiform encephalopathy (TSE) called kuru, and this year's Nobel Prize awarded for the finding that the transmissible agent, called a prion contains only protein; unlike every other known infectious agent, it appears to contain no nucleic acids. The importance of transmissible prions in human disease has seemed remote, since the route of transmis-

sion of kuru was so unusual (the disease occurred in a tribe of cannibals that ate the brains of the recently deceased). However, in March of 1996, the world was alarmed to learn that a TSE of cattle in Britain ("mad cow" disease) might have been passed to humans. As of today, 21 citizens of Britain and France are known to be affected.

Two new reports demonstrate conclusively that the people with this new TSE (called variant Creutzfeldt-Jakob disease) have the same strain of prion that caused mad cow disease, as determined by studies of its chemical structure and transmission pattern to animals.

Comment: Until now, some doubt has persisted that mad cow disease has been passed to humans. Although these studies eliminate that doubt, several questions remain, such as how the prion was passed, how many people have been infected, and whether prion diseases can be passed to humans from animals other than cattle. The editorialists believe that, in the recent cases, transmission probably occurred when people ate infected beef —AL Komaroff

Hill AF et al. *The same prion strain causes vCJD and BSE*. *Nature* 1997 Oct 2; 389:448-50.

Bruce ME et al. *Transmissions to mice indicate that "new variant" CJD is caused by the BSE agent*. *Nature* 1997 Oct 2; 389:498-501.

Almond J and Pattison J. *Human BSE*. *Nature* 1997 Oct 2; 398:437-8.

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Predicting & Preventing Falls in the Elderly

Falls are a frequent cause of morbidity and mortality in the elderly. Two studies in the *British Medical Journal* address ways to reduce the incidence of falls.

In the first, a case-control study of elderly inpatients at three British hospitals, researchers prospectively identified five independent predictors of falling while in the hospital: a fall as the presenting complaint, some but not complete mobility (as measured by the Barthel index of neurological function), agitation, the need for frequent toileting and visual impairment. These factors were combined into a five-point risk assessment tool that was 92% to 93% sensitive and 68% to 88% specific in two prospective evaluations.

In the second study, from New Zealand, 233 community-living women at least 80 years old were randomized to receive either an exercise program with training or no exercise program. After one year, there were 88 falls in the exercise group and 152 falls in the control group. The exercise group was 39% less likely than the control group to sustain a first fall with injury.

Comment: While these two studies indicate that it is possible to predict patients' risk of falling in the hospital and to reduce the incidence of falls in

community-living women, we still need to identify ways to prevent falls in the inpatient setting. - KI Marton

Oliver D et al. Development and evaluation of evidence based risk assessment tool (STRATIFY) to predict which elderly inpatients will fall: Case control and cohort studies. *BMJ* 1997 Oct 25; 315: 1049-53.

Campbell AJ et al. Randomized controlled trial of a general practice programme of home based exercise to prevent falls in elderly women. *BMJ* 1997 Oct 25; 315:1065-9.

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Oral Contraceptives and Risk for Stroke

High-dose oral contraceptives (OCs) have been associated with an increased risk for stroke, but studies of lower-dose OCs have yielded conflicting results. This population-based, case-control study from Washington state explored the association between low-dose OC use and stroke in 173 incident cases of stroke and 485 randomly selected controls. All subjects were adult women under age 45 without known coronary heart disease.

After adjustment for other stroke risk factors, current and past OC users were not at increased risk for stroke (odds ratios, 0.89 and 0.60, respectively, both nonsignificant) compared with women who had never used OCs. Odds ratios for stroke were also not significantly elevated in current OC users over age 34, smokers, or women with increased body mass. However, use of OCs containing norgestrel-type progestins was significantly associated with stroke risk, particularly for hemorrhagic stroke (OR, 3.29).

Comment: This study was limited by the inclusion of few stroke cases in current OC users. But stroke is very rare in young women, and the study unlikely to have missed an important relative or absolute increase in risk. Norgestrel-type progestins have been hypothesized to negate the cardiovascular benefits of OCs, but their possible danger was an unexpected finding that will require confirmation. —R Saitz

Schwartz SM et al. Use of low-dose oral contraceptives and stroke in young women. *Ann Intern Med* 1997 Oct 15; 127: 596-603.

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Disciplinary Action Bulletin – Arkansas State Board of Nursing

The nurses listed in this bulletin have had disciplinary action taken against their licenses. When a nurse's license to practice nursing is revoked or suspended, return of the license to the Board Office is requested;

however, licenses may not be returned. Also, individuals placed on probation must continue to meet conditions for the retention, or future reinstatement, of their licenses. When hiring such an individual the Board Office should be contacted. Therefore, the Board routinely suggests this list be shared with the appropriate supervisory personnel and recruiters in your organization. At the completion of the disciplinary period, the nurse applies for reinstatement. Reinstatement is contingent upon meeting the conditions set forth by the Board.

In accordance with the Arkansas Nurse Practice Act and the Arkansas Administrative Procedure Act, the Arkansas State Board of Nursing took the following action after individual hearings:

Disciplinary: November 19, 1997:

*Cynthia Lou Phillips Buchanan, LPN 11221 (Mena) Probation, 2 years; Civil penalty, \$750

*Donna Kay DeVore, RN 31613/LPN 18470 (Wynne) Reinstatement/Suspension, 2 years; Civil penalty, \$500

*Elizabeth Becky Howell Hargrove, RN 27753 (Rogers) Suspension, 18 months; Civil penalty, \$1,900

*William Eugene Kearney, LPN 15285 (Paris) Probation, 2 years; Civil penalty, \$1,000

*Luann H. Howard Lyons, RN 31236 (Fordyce) Probation, 2 years; Civil penalty, \$1,500

*Judith Gail Lawrence Miller, RN 54976/LPN 29557 (Van Buren) Suspension, 2 years; Civil penalty, \$500

*Brenda Maye Hightower Roach, RN 39216 (Pearcy) Reinstatement/Probation, 1-1/2 years

*Katherine Marie Edinger Bridges Walker, LPN 24886 (Paris) Suspension, 2 years; Civil penalty, \$2,000

Reinstatement:

*Libby Lanelle Wilson Kohler Cooper, RN 25906 (Van Buren)

Off Probation:

*Kimberly Joy Henderson Royce, RN 42270 (Benton) 10/15/97

*Elisia Ann Oates White, RN 15065 (Wynne) 11/1/97

*Joann Adams Richard, RN 36286 (Spiro, OK) 11/1/97

*Cynthia Michelle Smith Konert, RN 29297 (Van Buren) 11/1/97

*Ginger Kay Allen Davenport, RN 29756 (Fort Smith) 11/1/97

*Sharon Ann Morris, RN 11056 (Springdale) 11/1/97

License Voluntarily Surrendered:

James William Hall, RN 30366 (Cabot) 11/17/97

Information provided by the Arkansas State Board of Nursing.



AMS Medical Student Section (pictured in two groups above) will elect new officers this month at the student luncheon.

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It is a perfect showplace for fine cattle or horses, and it offers hunting for deer, turkey, quail, and fishing in White River. The price, \$965,000.00. Call Ennis Realty, 870-793-6891. You won't be disappointed if you come and look.

AMS Newsmakers

Dr. Michael J. Cross, of Fayetteville, and Dr. Michael Rook, of Pine Bluff, were among 1,592 Initiates from around the world who became Fellows of the American College of Surgeons during convocation ceremonies at the College's recent annual Clinical Congress in Chicago.

Dr. Harry Harmon and Dr. Barry Allen along with retired nurse Beth Lile, all of Rogers, were recently awarded with a plaque naming St. Mary's Hospital's Intensive Care Nursery in their honor. With just three beds and Dr. Harmon as the only staff member, the facility opened in 1974 to handle high-risk and premature births. Lile and Allen joined later.

Dr. John Hoffman of Fort Smith was recently named vice president of medical affairs for St. Edward Mercy Medical Center. The position was created to help physicians be more involved in the administrative end of the hospital.

Dr. Steve Jones of El Dorado was recently elected to a two-year term as governor of the American College of Gastroenterology, representing Arkansas. He will promote and support local and regional meetings

and activities designed to educate primary care physicians, the public, lay groups, managed care organization and third-party payers about digestive diseases and the role of the gastroenterologist in their management.

The Hospice Foundation of Arkansas hosted a tribute to Dr. Eugene Towbin recently at the Embassy Suites in Little Rock. Proceeds from the dinner honoring Dr. Towbin, who was a leader in the field of geriatric medicine, research and education, will go to the first Arkansas hospice facility which was brought into existence by Towbin.

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS recipient for the month of November is Doyne Dodd of Little Rock.

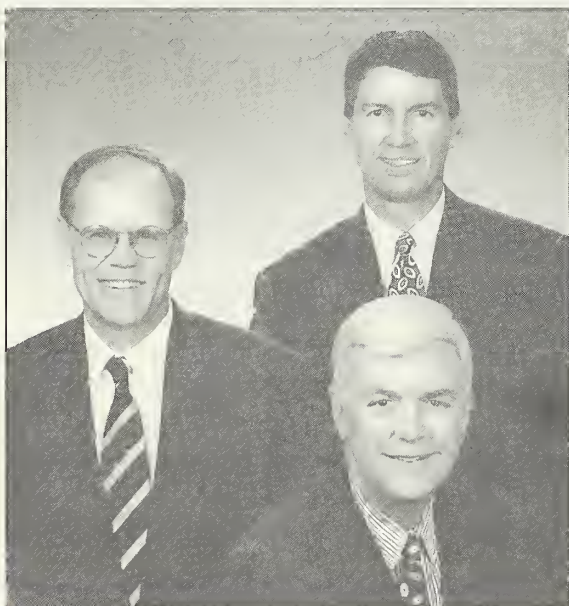
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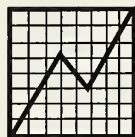
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The Value of Measuring Practice Patterns

Steven L. Thomason, M.D., F.A.A.F.P.*

The art of medicine. . . The science of medicine. . . It is interesting that much of the debate in today's health care industry is centered around practice guidelines, clinical pathways, and protocols and how they impact the "quality" of medicine. "Decrease variation," the HMO says; "Cookbook medicine," the physician retorts. I contend that the roots of our profession are grounded, not in art, not in science, but firmly in an amalgamation of the two, and if we tip the balance too far in one direction, physicians become either artisans or technicians. What we, as physicians, are challenged to do in our day is grapple the reins of health care back from health plans, administrators and bureaucrats, not in an attempt to exclude them, but rather to exert ourselves as the true managers of care. We are the patient advocates in the truest sense. But to do so we must show all of third parties, and more importantly our patients, that we are willing to open ourselves and our practice patterns to rigorous scientific method once again.

The Truth Hurts?

"But we have always practiced as scientists," one might say. This is true and false. We studied in medical school, we precepted with researchers, we trained extensively in residency and we read journals and attend CME meetings regularly. All these activities guide us in our decision-making, to be sure. But how much of what we do in our daily practice is based in scientifically-published research and reported evidence? Not much, it turns out. At least three major studies, sanctioned by the National Institutes of Health, have shown that no more than 20% of what we do, the clinical decisions we make, and the care we provide has been "shown" to be effective or proven appropriate care.^{1,2,3} Does that mean that eighty percent of what we do is wrong? Of course not! Most of it

works, but it has just never been "proven" to work. In essence, it is habit based on experience - perhaps anecdotal experience (it worked last time so I'll try it again), or perhaps the physician got the information from a consultant who did it that way, or from a pharmaceutical representative citing a company-sanctioned study. We all work this way because none of us can ever expect to keep current on all published, refereed articles. There are some 30,000 medical research articles published every month, and even all that research is not touching the tip of the iceberg in terms of proving every significant medical decision in the care of every disease. It never will because most of the research is focused on one of two areas: either diseases of great societal concern where the government has assumed the role of advocate for its citizens, or on products (drugs, technological devices and techniques) that can be patented and therefore are worth the financial risk of research and development.

Our Track Record in Health Care

Much has been published about the generally poor state of medical care in the hospitals of our country around the turn of the century. The Flexner Report in 1910 led to the closing of numerous colleges of medicine which lacked the standards of what grew to become our modern day medical profession. In 1916, the American College of Surgeons surveyed 2,700 U.S. hospitals for "quality." Only 89 passed. During the next three decades the American College of Surgeons continued to serve as the standard bearer for institutional quality until in 1952 they recruited the help of the American Medical Association, the American Hospital Association and other bodies in what became the Joint Commission on Accreditation of Hospitals. Then, in 1965, the federal government jumped into the picture when it enacted Medicare. Certainly, the state of health care has improved dramatically during this century, and it continues to make great strides in several areas; but due to the vast fund of medical knowledge now needed to practice medicine and the level of com-

* Steven L. Thomason is a family physician and serves as medical director of Arkansas Health Group in Little Rock. His responsibilities include directing the implementation of quality measurement projects for the 89-physician practice.

plexity of the system in which care is provided, some problems have been exacerbated.

In 1964, twenty percent of patients admitted to a university hospital suffered iatrogenic complications, and twenty percent of those were serious or fatal.⁴ Seventeen years later, 36% of patients admitted to a university hospital suffered iatrogenic complications, and 25% were serious or life-threatening.⁵ In a separate study, physicians working in an Intensive Care Unit, where presumably there is heightened intensity of supervision, demonstrated a 99.0% proficiency in the accuracy of their orders. What is interesting is that at that level of proficiency, there were 1.7 clinical errors per patient per day—and 29% of those errors were potentially serious or fatal.⁶ Now assume a proficiency rate of 99.9%, and compare that level of clinical proficiency with corresponding levels of proficiency in other industries.

How good is 99.9% proficiency?⁷

Airlines	2 unsafe landings per day at Chicago's O'Hare Airport
Post Office	16,000 pieces of mail lost every hour
Banks	32,000 checks deducted from the wrong account every hour

The uncomfortable fact of the matter is that while health care is far better now than it was in previous decades, nevertheless we still have a long way to go before we are truly proficient as a profession and as a system. So what is the solution then?

Opportunity for Improvement

In an ideal environment every health care provider would have at his or her disposal access to relevant, important clinical information in real-time (i.e., firm scientific evidence supporting the plan of care available at the time the decision is made). Managed care should really be about *managing processes of care* and not managing physicians. But to better manage processes of care, physicians (as principal providers in our system of health care) must have the right data in the right format at the right time. By having data about his/her practice patterns and outcomes as compared to some benchmark or standard, the individual physician can glean from the information appropriate details that can be incorporated into his practice in the fashion of continuous quality improvement. It is a concept that many other industries adopted decades ago; hospitals have been buzzing with it in the form of CQI or TQM in Deming fashion during the last several years.

Physicians now have the opportunity to incorpo-

rate such a scientific method into their daily routine through Evidence-Based Medicine.

A Model of Evidence-Based Medicine

The benefits of developing such a model are manifold: First, it gives the physician (or a group of physicians) the opportunity to retain direction and control over the format of the data collection. Practice guidelines, clinical pathways, protocols and standards are all examples of common but not exclusive methods of data measurement. Secondly, and more importantly, the physician determines the characteristics of the data feedback and interprets the extent of their validity and reliability. *Own your data, or somebody else will.* Only through such a process can consistent, measurable improvements be realized. Each time a physician makes a medical decision, he should ask himself three questions which lie at the heart of the scientific method:

Why do I choose this approach? How do I know that it works? How can I improve what I do?

Although it will seem awkward, by asking these questions at every step, the physician will become keenly aware of just how much is based on habit, not on research.

Cookbook or Textbook Medicine?

The most common response from physicians faced with implementation of processes intended to decrease variation in their practices is that it really is just cookbook medicine, and it is an attack on their abilities as professionals. I have heard a valid and logical argument, however, that seeks to refute that claim. By collecting data on practice patterns and therefore (intuit) the medical outcomes, a physician is truly acting as a scientist. The physician, in essence, is practicing "textbook medicine," except that this text is current and always applicable at a local level. The best example of how this works is in the area of pediatric oncology where tumor registries, protocols, and outcomes are monitored for each patient and for cohorts over time. As a result there have been dramatic advances in the care and cure of these patients' diseases.

Seize the Opportunity

We have an historic opportunity in these modern times of computers, databases, and expert systems to regain some of the responsibility and control of data about our practices. The data are being collected and will continue to be collected more and more, but unfortunately most of the data at this time are used for projects such as utilization management and cost containment. What precious few quality measurements in place are being used as provider selection criteria,

but the physicians rarely see the information as feedback with an opportunity to improve. Physicians, therefore, need to provide leadership for a new form of managed care where the data are used by physicians with the goal of improving the process of health care delivery. Better outcomes, improved cost savings, and higher patient satisfaction levels will be the rewards.

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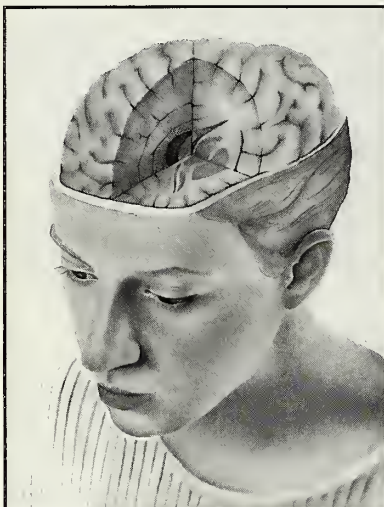
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*UAMS full time biomedical graphic artist, 1994-1995

*University of Rochester School of Medicine, human gross anatomy lecture and full cadaver dissection, 1996-1997

*Strong Memorial Hospital, observation and illustration of surgical procedures, 1996-1997

*Rochester Institute of Technology, graduate assistant and instructor, 1996-1997.

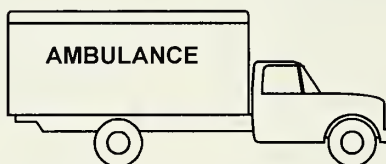
Her publication work includes cover illustrations for *The Journal of the Arkansas Medical Society*, November 1997; two illustrations demonstrating the proper method for tick removal in *Seminars in Pediatric Infectious Diseases*, April 1994; and an illustration demonstrating how asthma is triggered in the classroom in *Pediatric Nursing*, March 1994.

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Perioperative Blood Transfusion Project

An Arkansas Foundation for Medical Care Report

William E. Golden, M.D.*

Nena Sanchez, M.S.**

This article reports results of an earlier Arkansas Foundation for Medical Care (AFMC) effort and provides new data concerning the use of perioperative blood transfusions. Previous communication focused on practice guidelines for triggers of transfusion as well as the potential for cost savings by increasing the use of type and screen procedures for patients at low risk of intraoperative transfusion.

Blood is a scarce resource and reductions in its use can reduce health care costs, both to the immediate episode of care, as well as the recruitment efforts needed for enticing donors to replenish the blood supply. Moreover, despite the marked increase in the safety of our blood supply, there are still infectious diseases and allergy risks associated with each unit of blood. Indeed, most fatal transfusion reactions in the United States reflect administration of the wrong unit of blood. Reduction in the use of blood diminishes the potential for administrative error and possible catastrophic transfusion reaction.

In response to our previous effort, several hospitals examined their pre-transfusion processes and discovered higher use of type and cross techniques than was warranted from the patient's risk for transfusion. Their review prompted institutional adoption of new procedures which lowered the type and cross match ratios at several hospitals, and thus, the overall state average for this value. Tables 1 and 2 summarize the impact of this project.

In compiling data for the type and cross match follow up, AFMC also examined transfusion practices for patients who underwent colectomies, transurethral resection of prostate (TURP), and hip operations. Practice guidelines from several organizations stress the need for patient assessment after each unit of blood and to avoid the use of automatic transfusion hematocrit triggers in the perioperative period. Authorities now discourage "30" as a target goal for hematocrit. Rather, patients should be transfused based on their physiologic needs. Many elderly patients, even those with coronary disease, do quite well and can be discharged with hematocrits between 25 and 30. There-

fore, single unit transfusions should no longer be quality flags for blood utilization committees but rather be encouraged to conserve blood supply and reduce patient risk.

Review of postoperative transfusion practices in our study population (autologous transfusions were excluded) demonstrates that only 15.7% of postoperative blood transfusions for these three operations used only one unit (see Figure 1). Only thirty percent of patients who received multiple units of blood received serial hematocrits between units (see Table 3). The average discharge hematocrit of transfused patients was 31.3. Sixty-three percent of the patients went home with hematocrits greater than or equal to 30 after receiving multiple units of blood (see Figure 2). Patients who received only 1 unit of blood had an average discharge hematocrit of 29.7, statistically less than patients receiving multiple units of blood (see Table 4). Thus, there is strong evidence that many Arkansas patients who received multiple units of blood after surgery for TURP, colectomy, or hip fracture, probably did not need the last unit of blood. Elimination of this last unit of transfusion throughout the state for patients with all conditions and insurance status could avoid a large number of transfusions and reduce the demand for donors to replenish our red blood cell supply.

Similarly, there is a tendency to transfuse patients to a hematocrit of 30 preoperatively. Greater focus on preoperative volume status rather than hematocrit could preclude some preoperative transfusions. In this circumstance, however, the risk of intraoperative blood loss is harder to quantitate and potential for intraoperative loss relies on physician judgement and careful use of blood bank resources.

Conclusions:

1. Blood is a scarce resource with specific risks associated with each unit transfused.
2. Hospitals responded to an earlier AFMC project and increased use of type and screen matching procedures, thus streamlining blood processing operations.
3. Most postoperative transfusions in Arkansas are given as multiple units with the average Medicare patient being discharged with a hematocrit in the 30's.
4. It is likely that, for the average patient receiving multiple units of blood postoperatively, the final unit

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transfused could be eliminated without adverse effects on patient outcome.

Suggestions:

1. This project should be reviewed by QI, blood transfusion review committees and medical staff.

2. Hospitals should promote rather than discourage single unit transfusions.

3. Blood banks could institute a policy of serial hematocrits for postoperative patients prior to the release of non-emergent blood after the first unit transfused.

4. Hospitals monitor pretransfusion hematocrits over time to assess the need and impact the above policies.

As always, AFMC welcomes comments and suggestions concerning this project. We hope it is of use to your institution in designing quality improvement initiatives within your facility.

Charts and figures are shown on this and the following page.

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Table 1: Blood Transfusion Study

	JAN 93-JUN 94		MAY 95-FEB 96	
	# of Hospitals	CT Ratio	# of Hospitals	CT Ratio
Statewide	75	1.96	76	1.77***
Rating 1 – 2 (No Project)	14	1.57	14	1.63
Rating 3 – 4 (Evolving Project)	33	1.96	34	1.75***
Rating 5 – 6 (Finished Project)	28	2.02	28	1.87
Didn't Study Type & Screens	36	1.80	36	1.77
Studied Type & Screens	39	2.05	40	1.77 ***

P-values resulted from testing between time frames.

* P-value ≤ .10 ** P-value ≤ .05 *** P-value ≤ .01

Table 2: Crossmatch to Transfusion Ratios Comparison Between Timeframes for Provider Characteristics

	JAN 93-JUN 94		MAY 95-FEB 96	
Provider Characteristics	# of Hospitals	CT Ratio	# of Hospitals	CT Ratio
<u>Bedsize:</u> <100 beds ≥100 beds	40 35	1.75 1.99	41 35	1.64 1.78**
<u>Hospital Setting:</u> Urban Rural	16 59	2.02 1.87	16 60	1.77** 1.76
<u>Coronary Care Unit:</u> No Yes	20 55	1.70 1.98	20 56	1.61 1.78***
<u>Invasive Surgery:</u> No Yes	39 36	1.76 1.99	40 36	1.70 1.78***
<u>Medical/Surgical ICU:</u> No Yes	9 66	1.64 1.97	9 67	1.42 1.77***
<u>Peer Group:</u> A B C	26 41 8	1.65 1.87 2.08	27 41 8	1.58 1.60*** 1.97

P-values resulted from testing between time frames for provider characteristics

** P-value ≤ .05 *** P-value ≤ .01

Table 3: Blood Hematocrit Study-Serial HCT's checked for Patients with Multiple Units Transfused Post-op

Lowest Post-op HCT	# of Patients With Multiple Units Transfused Post-op	Avg. Number of Units Transfused Post-op	Serial HCT's Used
<20.0	11	3.00	45.5%
20.0-23.9	92	2.92	31.5%
24.0-27.9	117	2.51	26.5%
28.0-31.9	24	2.42	33.3%
>=32.0	8	2.50	37.5%
TOTAL	252	2.67	30.2%

Table 4: Comparison of Discharge Hematocrits

Transfused Post-op	# of Patients	Avg. Discharge HCT
One Unit	47	29.7
More than One Unit	252	31.6
p-value = .0022		

Figure 1: Post-op Transfusions

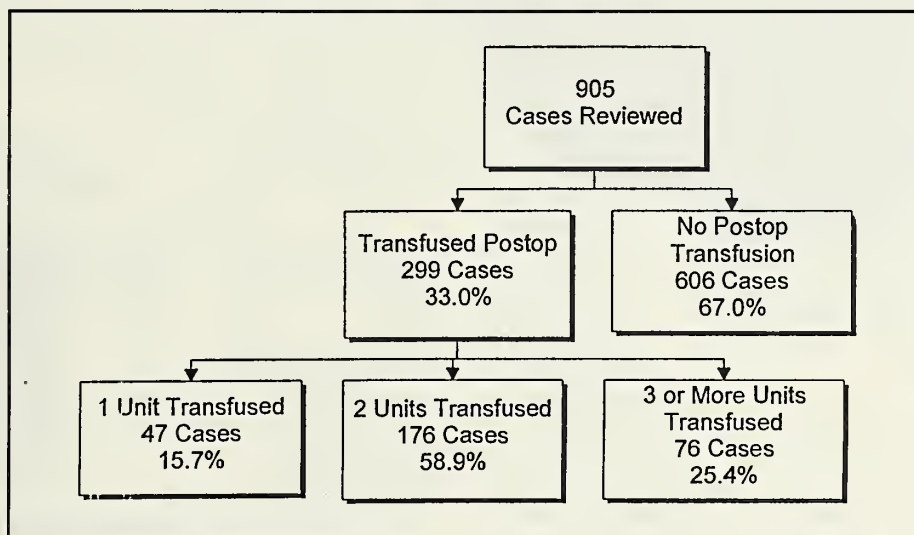
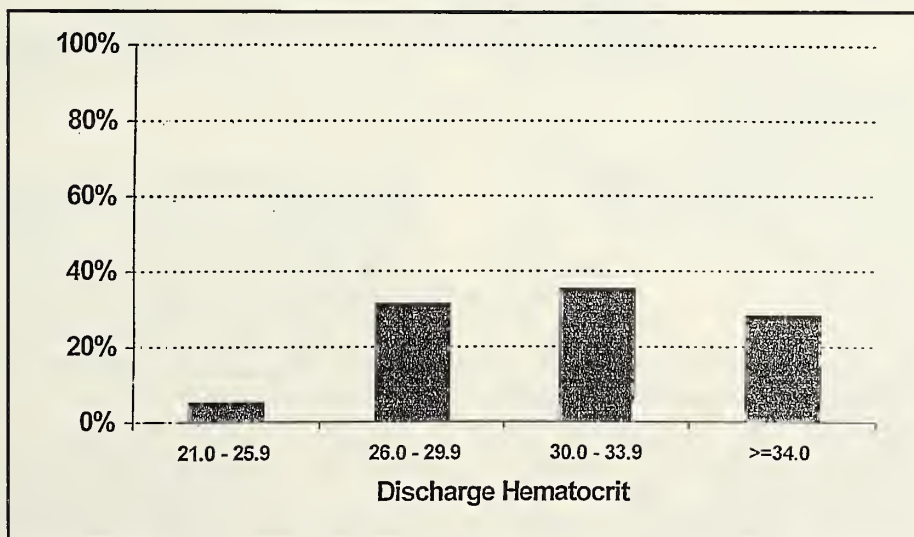


Figure 2: Patients Transfused more than One Unit Post-op



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 Thank You!*
*As you can see from a sampling of
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 appreciated and in many
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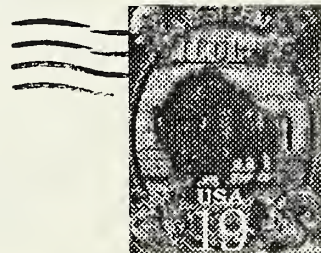
It has been three days since you sent me to the doctor and I have a ways to go to be 100%, but I can breathe and walk across the room now. I had given up hope almost, and I remembered Arkansas Health Care. The doctor gave me two of the medicines I needed and the pharmacy you sent me to filled the antibiotics. Your doctor even "chewed" me out for not coming in two weeks previously. I'm starting to feel good again. God bless you.

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Due to your generous assistance, I was able to see an eye doctor and no longer fear the loss of my vision. Thank you all for being there.

When I needed medical attention, I was blessed with the knowledge of your program. There were kind and helpful people to guide me.

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Price of the Learning Curve?

J. Kelley Avery, M.D.

Case Report

A 22-year-old obese college student was seen by her primary care physician complaining of pain in the right upper quadrant (RUQ) with radiation to the back for three days. The symptoms began following a meal. The examination revealed some tenderness in the RUQ and the physician thought that a presumptive diagnosis of cholelithiasis was justified. She was referred to a surgeon for further evaluation.

Before the patient saw the surgeon, he ordered an ultrasound examination of the abdomen that showed a "sizeable echo focus" in the gallbladder. It was a week before the patient saw the surgeon, who stated in his record, "She has no insurance and is a student. She is checking with the health department for coverage."

When the patient expressed to the health department physician some reluctance about having the operation, she was instructed to go on a low-fat diet, given a mild sedative/antispasmodic, and told to return if she did not improve. Four days later she returned to the health department with continuing pain and indigestion, and more tenderness in the RUQ than she had had on the previous examination. The WBC count was found to be 13,000/cu mm, with a left shift. She was advised to return to the surgeon, and arrangements were made for her to be admitted for emergency surgery.

The patient was admitted to the hospital that day and a laparoscopic cholecystectomy was scheduled for the following morning. The workup done in the ED on the afternoon of admission revealed an obese 22-year-old with some tenderness in the RUQ. She weighed 224 lb., and was 5 ft 2 in tall. Her temperature was 99°F, pulse 96/min, and blood pressure 118/80 mm Hg. She was not jaundiced and her heart and lungs were thought to be normal.

She had "large pendulous breasts, not examined,"

and pelvic and rectal examination were "deferred." The abdomen was obese with "mild tenderness in the RUQ." (When the breasts, pelvis, and rectum are recorded only to comment that no examination of these areas was done, one wonders whether the patient was carefully examined before her surgery or not.)

The operative note describes an uneventful operation except to say, "She had some hypotension during the procedure." The anesthesia record does indeed record a fall in blood pressure about 30 minutes into the operation with a corresponding increase in the pulse rate. The hypotension responded to a position change and more IV fluids. The pulse rate remained 30/min higher than baseline throughout the operation.

About five hours after the operation, this note was made in the record: "Postop pt. pale, lethargic, usual abdominal tenderness. BP 108 systolic. Pulse 120, Hct. 27. Will repeat. If Hct. continues to fall may need exploration." The hematocrit did indeed continue to fall and reexploration was done as an emergency procedure by another surgeon with the attending surgeon as assistant. The operative procedure was styled, "Exploratory laparotomy with ligation of mesenteric bleeders, ligation of the left iliac vein, and 8-mm Gore-Tex interposition graft right iliac artery." The postoperative diagnosis was documented, "Hemorrhagic shock secondary to postoperative through and through laceration of right iliac artery, laceration of left iliac vein, and multiple lacerations secondary to trocar injury." In a postoperative progress note, the operating surgeon stated that, "Replacement: 1900 cell saver, 10 units bank blood."

The anesthesia note reported that the patient had experienced a "respiratory arrest" when she arrived in the operating room.

Despite all efforts on the part of the team, this patient's condition continued to deteriorate and about six hours after the emergency procedure, the surgeon's note documented the decline in his patient, stating, "Pupils now dilated to 8-10 mm. Non-reactive." A consultation

* Dr. Avery is Chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Co., Brentwood, TN. This article appeared in the August 1994 issue of the *Journal of the Tennessee Medical Association*. It is reprinted here with permission.

was secured from a hematologist who believed that the patient had developed a "coagulation dysfunction." Her condition continued to deteriorate, and she developed what appeared on a CT examination of the head to be a brain stem hemorrhage. All heroic efforts were discontinued about 20 hours after the reexploration.

A lawsuit was filed charging the attending surgeon with "negligently inserting the trocar, lacerating the left iliac artery and vena cava, and lack of informed consent." Settlement of this case required the payment of a large amount of money in the high six-figure range.

Loss Prevention Comments

This case confronts us with some very interesting problems, almost none of which can be answered from the clinical record. First, while the trocar injury is a known hazard of the procedure, it is difficult to escape the conclusion that undue pressure was exerted on introduction of the instrument. It is also reasonable to expect that vascular injury could result from this kind of entry and that a careful search for injury would ensue and well might require the surgeon to convert this to an open procedure. The record does suggest that the surgeon may have delayed his appointment with the patient while she checked "with the health department for coverage."

It is now known that laparoscopic cholecystectomy is associated with a serious complication rate several times that of conventional open cholecystectomy. Should this be included as a part of the preoperative discussion with the patient, balancing the shorter hospital stay, the reduced morbidity, and the much quicker recovery and return to normal activities against this known fact about the complication rate? It is also known that the learning curve for this procedure is longer than originally thought. Should the surgeon be proctored by an experienced laparoscopist for more cases than the usual requirements in the typical medical staff credentialing policies? What kind of training had the attending surgeon had, and how many of his cases had been proctored by a surgeon experienced in this kind of procedure? At the time of this operation, was the surgeon still in the "learning curve"? Also, what is the learning curve anyway? As the patient's advocate in the doctor/patient relationship, should we all be giving more attention to these questions? The obvious answer to all of these questions is a resounding, "YES."

There is no question as to the valuable place of laparoscopic surgery in the armamentarium of the surgeon. In our enthusiasm to embrace new technology, however, we must balance its use with very strong issues of patient safety.

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David D. Griffin, M.D.*
Richard Rayford, M.D.*
J. David Talley, M.D.*

Left Ventricular Hypertrophy: Diagnosis, Prognosis and Treatment

Left ventricular hypertrophy (LVH) is commonly due to chronic pressure or volume overload on the left ventricle.¹ This increase in cardiac muscle mass is an adaptive mechanism to reduce ventricular wall stress. Severe complications occur when LVH becomes pronounced. Impairment of diastolic filling, decreased coronary flow reserve, ventricular arrhythmias, and eventually impairment of left ventricular contractility are seen in this late stage.² The most common cause of LVH is systemic arterial hypertension, which occurs in nearly 20% of adults in the United States.³ In this review, we present a patient with LVH and discuss the diagnosis, prognosis, and therapy of this modifiable risk factor.

Patient Report

A 74 year-old male presented with bright red bleeding per rectum (See Complete Problem List, Table 1). He did not have a history of congestive heart failure, chest discomfort, or syncope. A loud murmur was heard and an echocardiogram was ordered. The echocardiogram (Fig. 1) showed dramatic LVH. Measurements included: septal wall 20 mm and posterior wall 18 mm (normal ≤ 10 mm), left ventricle length 88 mm, and left ventricular width 49 mm. The calculated left ventricular mass was 450 grams (normal 175-340 grams). The velocity across the aortic valve was 4.35 meters/second (instantaneous velocity 76 mmHg) and the calculated aortic valve area was 1.0 cm². Diverticulosis was seen on endoscopy of the lower gastrointestinal tract. The patient was treated medically for the diverticulosis and a beta-blocking medication for the LVH. Periodic echocardiograms will be performed to monitor for the progression of the aortic stenosis.

Diagnosis

Electrocardiogram. The electrocardiogram (ECG) is the simplest and most frequently used tool for the diagnosis of LVH (Fig 2). There are numerous electro-

cardiographic criteria for LVH.⁴ The Romhilt and Estes point-score system (Table 2) is the best ECG criteria for the diagnosis of LVH with a sensitivity of 54% and a specificity of 97%.⁵

Echocardiography. Echocardiographic identification of LVH is far superior to ECG criteria, having a sensitivity of 93% and specificity of 95%.

Table 1: Complete Problem List

1. Bright red bleeding per rectum → colonoscopy: diverticulosis
2. Valvular Heart Disease
 - Etiology → Degeneration, calcification
 - Anatomy → Echocardiogram: calcific aortic stenosis, left ventricular hypertrophy, increased left ventricular mass
 - Physiology → a. ECG: left ventricular hypertrophy
b. Echocardiogram: moderate aortic stenosis
 - Objective Assessment → moderately compromised
 - Subjective Status → improved with therapy
3. Hypothyroidism

Prognosis

Electrocardiography. LVH diagnosed by ECG criteria (ECG-LVH) is an independent risk factor for cardiovascular death. Patients with ECG-LVH have three to four fold the risk of death compared to patients with normal wall thickness. This association is *unrelated* to the cause of the LVH.⁶ There is also a correlation between worsening ECG changes and prognosis. For each 5 mm increase in voltage, there is a 23% increase in mortality. The presence of a repolarization abnormality (ST segment depression or T wave inversion) imposes a two to three fold increase in risk.⁷

Although systemic arterial hypertension is associated with both coronary artery disease and LVH, Ghali, and colleagues found that the presence of LVH resulted in a two to four fold increase risk of death of any cause, regardless of the presence or absence of coronary artery disease.⁸ In patients with previous myocardial infarction, the finding of ECG-LVH increases the risk of death and repeat myocardial infarction.

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LVH is also associated with increased ventricular ectopy and ventricular arrhythmias. Indeed, there is a two to six fold increase risk of sudden death in patients with LVH.

Echocardiography. Data from the Framingham Study demonstrated a continuous relationship between cardiovascular risk and left ventricular mass, as measured by echocardiography.⁹ Each 50g/m increase in left ventricular mass increases the risk of death 1.7 fold in males and 2.1 fold in females.¹⁰ A failure to decrease or a paradoxical increase of left ventricular mass after taking anti-hypertensive medication is associated with an increase risk of sustaining a cardiovascular event.

Treatment

Encouragingly, the reduction of LVH improves prognosis. There is a 25% decrease in cardiovascular events when the ECG converts to normal.⁷

This reduction of cardiovascular events is seen with a variety of anti-hypertensive medications, including beta-adrenergic receptor blockers, calcium-channel blockers, diuretics, and angiotensin converting enzyme inhibitors.¹¹ With the possible exception of direct-acting vasodilators, most classes of anti-hypertensive medications will decrease LVH if blood pressure is substantially reduced.^{12,13} Sustained weight loss and decreased dietary intake of salt may also decrease left ventricular mass.¹⁴

In conclusion, LVH is a common independent risk factor for cardiovascular mortality that may be ameliorated by proper and timely treatment.

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Table 2: The Romhilt and Estes Criteria for the Electrocardiographic Diagnosis of Left Ventricular Hypertrophy

1. Amplitude	3 points
Any of the following:	
a. Largest R or S wave in the limb leads ≥ 20 mm	
b. S wave in V_1 or $V_2 \geq 30$ mm	
c. R wave in V_5 or $V_6 \geq 30$ mm	
2. ST-T segment changes (ventricular strain)	
Without digitalis	3 points
With digitalis	1 point
3. Left atrial abnormality	3 points
4. Left axis deviation -30° or more	2 points
5. QRS duration ≥ 0.09 second	1 point
6. Intrinsicoid deflection in V_5 or $V_6 \geq 0.05$ second	1 point

Definite left ventricular hypertrophy = 5 points

Probably left ventricular hypertrophy = 4 points

From: Romhilt DW, Estes EH Jr. A point-score system for the ECG diagnosis of left ventricular hypertrophy. *Am Heart J* 1968;75:752-758.

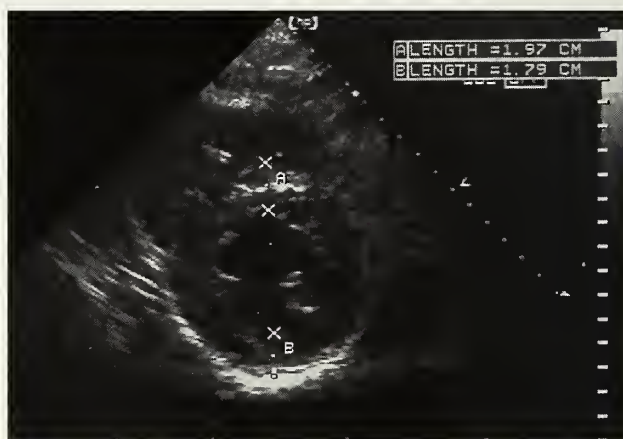


Figure 1: A 12 lead electrocardiogram with left ventricular hypertrophy. Using the Romhilt and Estes criteria, there is amplitude ≥ 30 mm in V_2 (3 points), ST-T segment changes typical of left ventricular strain, off digoxin, (3 points), left atrial abnormality (3 points), QRS duration ≥ 0.09 second (1 point), and intrinsicoid deflection in $V_5 \geq 0.05$ second (1 point). Total points = 11 points.

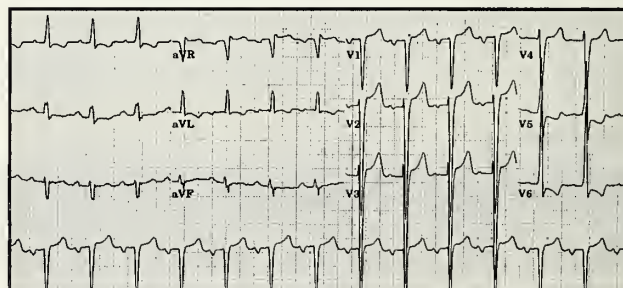


Figure 2: Parasternal long-axis echocardiogram of a patient with left ventricular hypertrophy. The septum is 20 mm thick and the posterior wall is 18 mm thick (normal 10 mm).



State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Prevention of Transmission of Hepatitis B: Responsibilities of Healthcare Providers

Arkansas law requires prenatal care providers to test all pregnant women for Hepatitis B surface antigen (HBsAg) status during each pregnancy. Public health law requires that all prenatal care providers report any positive HBsAg result to the Arkansas Department of Health (ADH). Reports can be made by calling (800)482-8888. Please note that the patient is pregnant.

If the HBsAg test is positive, the **prenatal provider** is responsible for:

1. Ensuring that this information is transmitted to the delivery site.
2. Counseling the woman about the meaning of the HBsAg test for her own health care, for the health of the infant, for the members of her household, and especially for her sexual partner.

The responsibilities of the **hospital staff (newborn nursery and labor and delivery)** should include:

1. Reviewing all Labor & Delivery admissions for results of previous HBsAg screening.
2. Ordering stat HBsAg test on all pregnant women admitted without documented HBsAg results.
3. Documenting test results within 24-48 hours.
4. Report all positive HBsAg results (either previous or current information) to ADH.
5. Respond to requests for demographic and clinical information from ADH.
6. Administer HBIG and Hepatitis B vaccine (high risk dose) to infants born to a positive mother within 12 hours of birth.
7. Provide needed health information for positive mothers regarding herself, her infant and household contacts.
8. Design discharge planning to ensure transfer of data to the infant's health care provider regarding the infant's vaccine needs and post vaccine serology.

Once the infant is discharged, the responsibilities of the **pediatric health care provider** should include the following:

1. Make sure that HBIG and Hepatitis B vaccine (high risk dose) is given to infants born to HBsAg positive mothers within 12 hours of birth
2. Administer hepatitis B vaccine (high risk dose) to infants whose mother's HBsAg status is unknown

at the time of delivery. Draw stat HBsAg and if positive give HBIG within 7 days of birth. If HBIG cannot be given within 7 days, it is important that subsequent doses (high risk) be given at appropriate intervals as follows:

Dose 1 at birth

Dose 2 at 1 month (minimum of 28 days)

Dose 3 at 6 months of age AND 4 months have passed since dose 1

3. Perform follow-up serology for HBsAg AND Anti-HBs at 1-3 months **after** completion of the hepatitis B vaccine series.

4. If the HBsAg is negative and the Anti-HBs is positive consider the infant protected by hepatitis B vaccine.

5. If the HBsAg is negative and the anti-HBs is negative repeat the Hepatitis B vaccine series. Then repeat serology 1-2 months after the second series has been completed.

6. Provide needed health information about preventing the spread of Hepatitis B within the household, for HBsAg positive mother regarding her infant and other children.

Responsibilities of The Arkansas Department of Health Include:

1. To provide technical assistance to hospitals and private providers who administer Hepatitis B vaccine.

2. To provide lab testing for pregnant women for HBsAg.

3. To identify pregnant women who are HBsAg positive.

4. To provide follow up services for infants born to HBsAg positive mom's to ensure that HBIG and High Risk Hepatitis B vaccine is given per schedule and post vaccine serology is obtained.

5. To provide testing and follow up immunization services for household contacts of pregnant women who are found to be HBsAg positive.

6. To provide statistical data to the State of Arkansas.

7. To provide statistical data to the Centers for Disease Control (CDC) in Atlanta.

If you have any questions, call Ms. Sherry Ahring, Hepatitis B Nursing Program Coordinator, at (501)661-2169 during normal business hours.

Reported Cases of Selected Diseases in Arkansas Profile for October 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	150	212	241	125	153
Giardiasis	198	151	182	111	131
Shigellosis	221	118	176	101	176
Salmonellosis	390	405	455	293	338
Hepatitis A	193	412	500	545	663
Hepatitis B	59	81	93	68	83
Hepatitis C	2	7	7	NR	NR
HIB	0	0	0	0	1
Meningococcal Infections	31	30	35	31	39
Viral Meningitis	20	32	38	31	33
Ehrlichiosis	22	7	7	14	14
Lyme Disease	25	27	27	10	12
Rocky Mountain Spotted Fever	23	21	22	31	31
Tularemia	22	23	24	20	22
Measles	0	0	0	2	2
Mumps	1	1	1	6	6
Gonorrhea	4234	4404	5050	4835	5437
Syphilis	363	646	706	902	1017
Legionellosis	0	1	1	6	8
Pertussis	55	14	14	59	59
Tuberculosis	147	195	225	197	271

NR Not reportable

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

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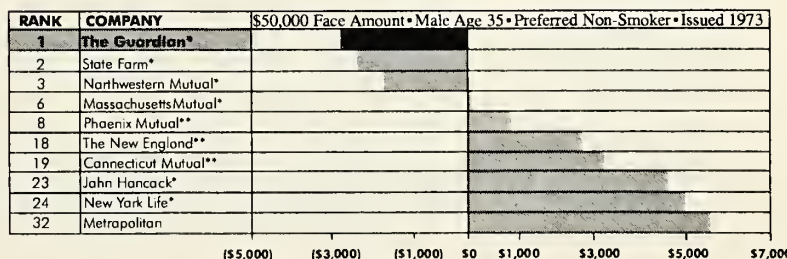
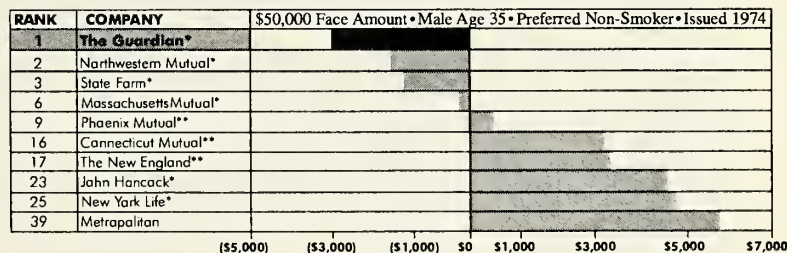
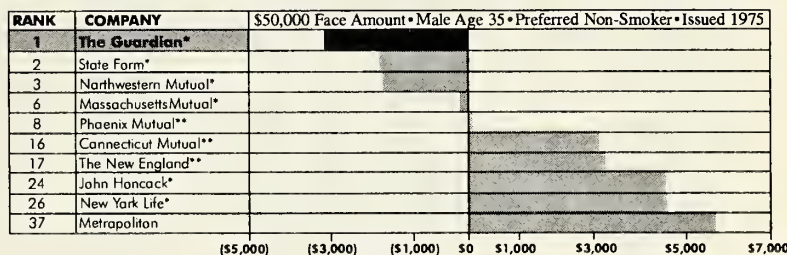
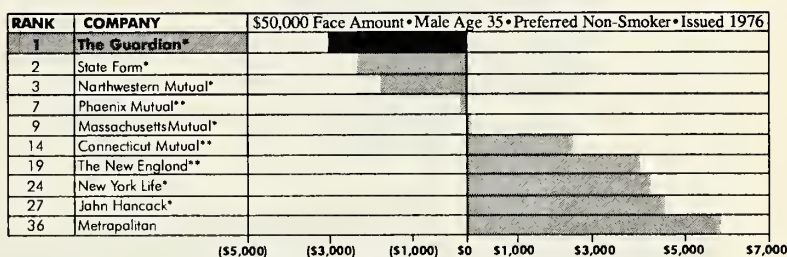
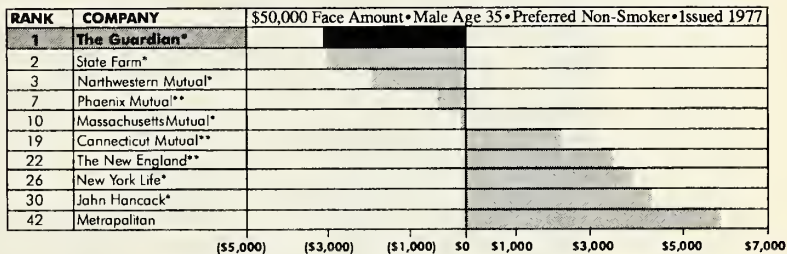
The Guardian's Little Rock Agency
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* Assumes policyowner participated in all policy enhancements and updates when first offered.

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Source: For policies issued from 1973 to 1974, calculated by The Guardian from results in the 1993 - 1994 Best's Fitchcraft Compend. For policies issued from 1975 to 1977, calculated by The Guardian from the results in the May 1995 - 1997 Best's Policy Reports.

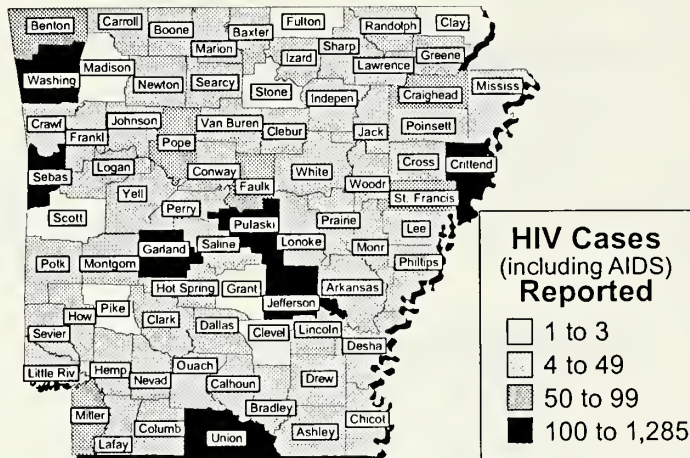
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HIV In Arkansas

Distribution Of Cases 1983 through November 12, 1997



HIV Cases By County

County	1983-11/12/97	Dec 96-Nov 97
Arkansas	20	6
Ashley	19	0
Baxter	30	4
Benton	92	7
Boone	31	•
Bradley	16	•
Calhoun	8	•
Carroll	39	•
Chicot	19	•
Clark	21	10
Clay	•	0
Cleburne	15	•
Cleveland	•	0
Columbia	20	•
Conway	20	0
Craighead	72	10
Crawford	34	•
Crittenden	166	18
Cross	23	5
Dallas	8	0
Desha	19	4
Drew	12	•
Faulkner	62	•
Franklin	6	•
Fulton	•	0
Garland	145	15
Grant	•	0
Greene	22	•
Hempstead	23	4
Hot Spring	22	0
Howard	9	0
Independence	28	0
Izard	8	•
Jackson	10	•
Jefferson	165	8
Johnson	11	0
Lafayette	6	0
Lawrence	12	•
Lee	15	•
Lincoln	4	0
Little River	14	•
Logan	8	4
Lonoke	25	•
Madison	•	0
Marion	4	0
Miller	97	12
Mississippi	48	7
Monroe	14	•
Montgomery	6	0
Nevada	4	•
Newton	5	0
Ouachita	34	•
Perry	5	0
Phillips	42	8
Pike	•	0
Poinsett	16	•
Polk	12	0
Pope	56	•
Prairie	6	0
Pulaski	1,285	87
Randolph	5	•
St. Francis	81	11
Saline	26	5
Scott	•	0
Searcy	5	•
Sebastian	215	15
Sevier	10	0
Sharp	10	0
Stone	•	•
Union	120	6
Van Buren	5	0
Washington	286	20
White	36	•
Woodruff	4	0
Yell	12	•
Prisons	112	19

* Case numbers of 1-3 are not reported.

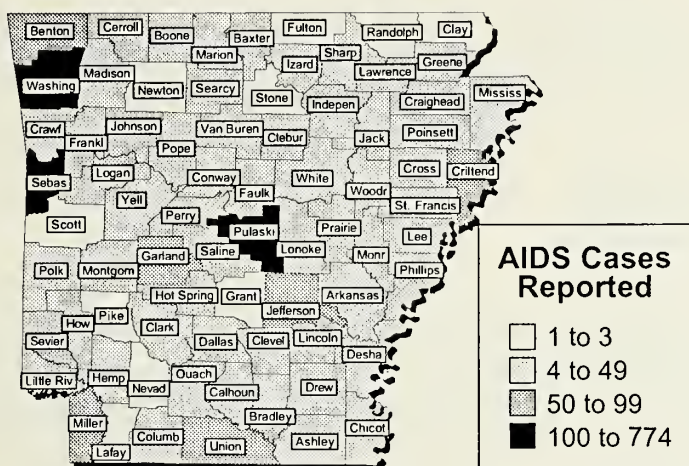
Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-89	1990	1991	1992	1993	1994	1995	1996	1997	Total	%
SEX	Male	510	367	376	374	339	346	323	266	234	3,135	81
	Female	64	67	87	76	89	89	89	78	89	728	19
AGE	Under 5	4	8	13	6	3	7	2	1	9	53	1
	5-12	2	5	1	2	1	0	1	0	0	12	0
	13-19	15	14	18	25	11	21	11	21	17	153	4
	20-24	94	61	43	48	59	58	44	29	33	469	12
	25-29	144	105	100	99	106	80	73	60	49	816	21
	30-34	128	105	114	106	89	93	97	84	71	887	23
	35-39	91	70	86	63	75	69	80	70	58	662	17
	40-44	43	38	47	39	45	48	46	35	42	383	10
	45-49	29	12	19	25	16	27	22	18	30	198	5
	50-54	8	7	14	14	10	10	17	14	6	100	3
	55-59	7	6	3	12	6	6	6	6	5	57	1
	60-64	2	1	2	6	5	9	7	1	2	35	1
	65 and older	7	2	3	5	2	7	6	5	1	38	1
RACE	White	385	290	280	280	264	244	253	187	167	2,350	61
	Black	185	141	180	164	159	180	151	145	140	1,445	37
	Hispanic	2	0	3	4	1	7	3	6	4	30	1
	Other/Unknown	2	3	0	2	4	4	5	6	12	39	1
RISK	Male/Male Sex Injection Drug User (IDU)	327	231	242	246	231	211	174	142	99	1,904	49
	Male/Male Sex + IDU	80	68	90	71	62	71	55	30	33	561	15
	Heterosexual (Known Risk)	77	38	32	37	28	23	28	23	13	300	8
	Transfusion	51	55	64	65	96	98	69	69	51	619	16
	Perinatal	16	6	8	9	1	2	4	2	0	48	1
	Hemophiliac	4	8	13	8	4	7	3	1	8	56	1
	Undetermined	6	18	5	6	2	3	5	0	1	46	1
		13	10	9	8	4	20	74	77	118	329	9
	TOTAL	574	434	463	450	428	435	412	344	323	3,863	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

AIDS In Arkansas

Distribution Of Cases 1983 through November 12, 1997



Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-89	1990	1991	1992	1993	1994	1995	1996	1997	Total	%
SEX	Male	231	162	171	243	326	253	237	212	160	1,995	86
	Female	21	19	25	34	63	42	35	54	42	335	14
AGE	Under 5	2	6	6	3	2	1	2	0	6	28	1
	5-12	1	1	1	0	1	0	2	0	0	6	0
	13-19	0	4	3	2	4	3	1	3	2	22	1
	20-24	23	10	14	14	31	22	11	14	11	150	6
	25-29	58	41	42	65	78	45	46	46	25	446	19
	30-34	62	44	42	70	96	80	74	75	51	594	25
	35-39	53	32	37	55	77	52	49	54	51	460	20
	40-44	21	18	33	27	48	40	35	37	28	287	12
	45-49	12	14	6	22	26	22	17	21	17	157	7
	50-54	4	5	5	7	10	12	15	4	4	66	3
	55-59	8	1	4	8	8	5	6	7	3	50	2
	60-64	3	1	1	2	5	10	5	1	1	29	1
	65 and older	5	4	2	2	3	3	9	4	3	35	2
RACE	White	192	133	132	200	264	189	174	144	123	1,551	67
	Black	57	46	63	73	121	103	95	116	73	747	32
	Hispanic	1	0	1	3	3	2	3	4	3	20	1
	Other/Unknown	2	2	0	1	1	1	0	2	3	12	1
RISK	Male/Male Sex Injection Drug User (IDU)	142	112	114	175	229	162	138	124	84	1,280	55
	Male/Male Sex + IDU	27	17	29	41	68	47	47	28	30	334	14
	Heterosexual (Known Risk)	49	19	21	27	29	25	25	23	10	228	10
	Transfusion	15	10	11	20	52	41	35	57	34	275	12
	Perinatal	13	7	8	5	1	4	4	3	0	45	2
	Hemophilia	2	6	6	3	3	1	3	0	6	30	1
	Undetermined	2	5	5	4	5	6	7	1	0	35	2
		2	5	2	2	2	9	13	30	38	103	4
TOTAL		252	181	196	277	389	295	272	266	202	2,330	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

AIDS Cases By County

County	1983- 11/12/97	Dec 96- Nov 97	Case Rate Per 100,000
Arkansas	9	0	0.0
Ashley	15	*	4.1
Baxter	23	*	3.2
Benton	73	6	6.2
Boone	24	*	10.6
Bradley	11	0	0.0
Calhoun	7	*	17.2
Carroll	24	*	5.4
Chicot	11	*	12.7
Clark	11	*	14.0
Clay	*	0	0.0
Cleburne	10	*	15.5
Cleveland	4	0	0.0
Columbia	15	*	3.9
Conway	14	0	0.0
Craighead	49	5	7.3
Crawford	27	*	2.4
Crittenden	84	10	20.0
Cross	11	*	10.4
Dallas	6	*	10.4
Desha	11	*	17.9
Drew	7	*	5.8
Faulkner	49	4	6.7
Franklin	4	0	0.0
Fulton	*	*	10.0
Garland	89	9	12.3
Grant	*	0	0.0
Greene	12	*	3.1
Hempstead	12	*	4.6
Hot Spring	16	0	0.0
Howard	6	0	0.0
Independence	17	*	6.4
Izard	8	*	26.4
Jackson	4	0	0.0
Jefferson	92	9	10.5
Johnson	7	0	0.0
Lafayette	*	0	0.0
Lawrence	12	*	11.5
Lee	10	*	23.0
Lincoln	5	*	7.3
Little River	6	*	7.2
Logan	8	*	14.6
Lonoke	23	*	2.5
Madison	4	0	0.0
Marion	4	0	0.0
Miller	54	8	20.8
Mississippi	18	*	3.5
Monroe	6	*	8.8
Montgomery	5	0	0.0
Nevada	*	0	0.0
Newton	*	0	0.0
Ouachita	21	*	3.3
Perry	4	0	0.0
Phillips	21	*	10.4
Pike	*	0	0.0
Poinsett	8	0	0.0
Polk	9	0	0.0
Pope	28	*	4.4
Prairie	6	*	10.5
Pulaski	774	76	21.7
Randolph	*	*	6.0
St. Francis	36	5	17.5
Saline	19	4	6.2
Scott	*	0	0.0
Searcy	5	*	12.8
Sebastian	131	10	10.0
Sevier	8	0	0.0
Sharp	8	*	14.2
Stone	*	0	0.0
Union	70	4	8.6
Van Buren	4	0	0.0
Washington	172	11	9.7
White	22	4	7.3
Woodruff	4	0	0.0
Yell	9	*	11.3
Prisons	32	*	N/A

* Case numbers of 1-3 are not reported.

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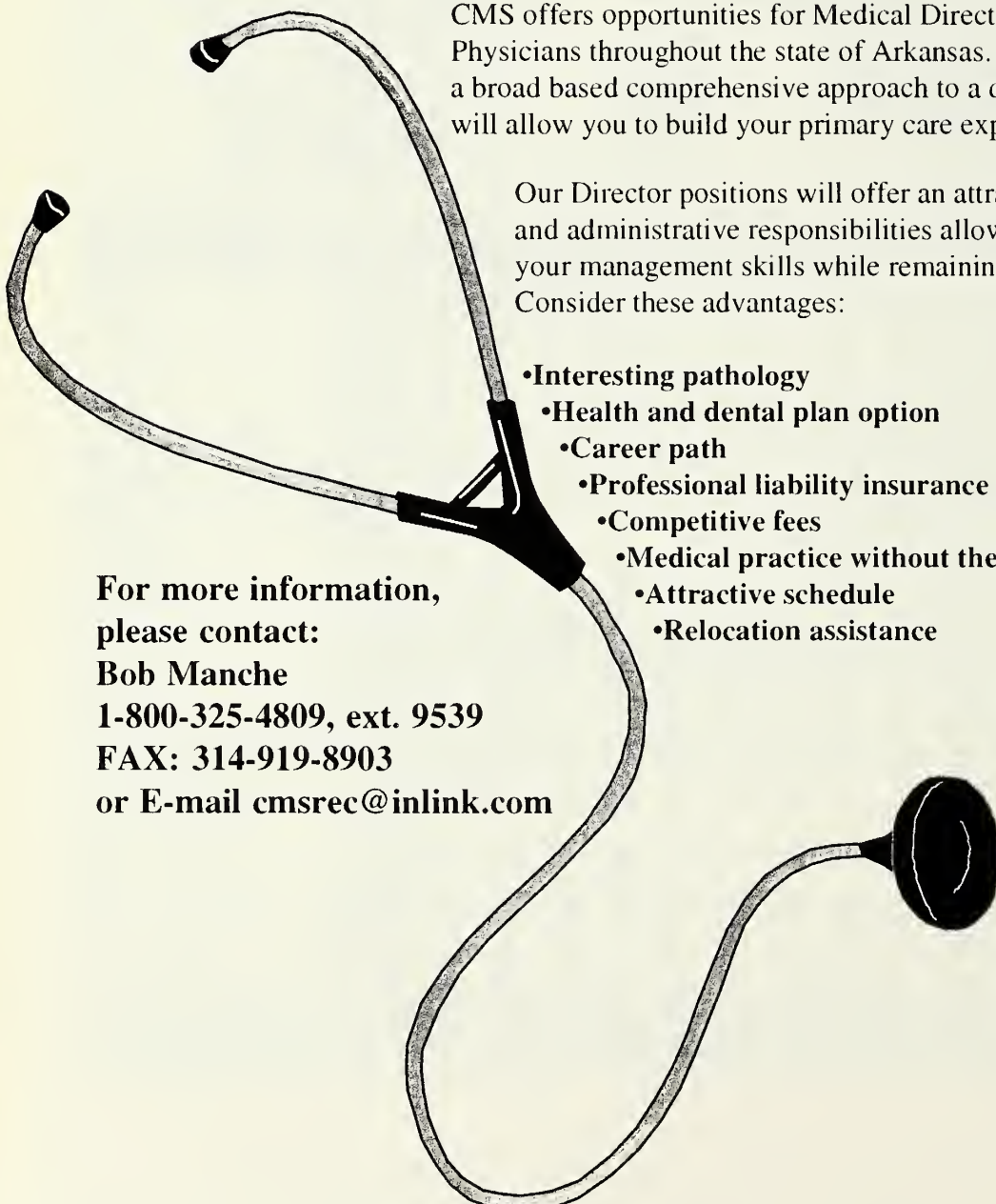
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HUNTSVILLE

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OUT OF STATE

Fearnot, Robert F., Psychiatry. Medical Education, Meharry Medical College, Nashville, Tennessee, 1980. Internship, Worcester City Hospital, Massachusetts, 1981. Residency, East Carolina University School of Medicine, Greenville, North Carolina, 1985. Board certified.

RESIDENTS

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Dulin, William Alan, General Surgery. Medical Education, UAMS, 1997. Residency, UAMS.

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Furlow, Stacy H., Pediatrics. Medical Education, UAMS, 1997. Residency, UAMS.

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Kueter, Joseph Charles, Urology. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Lassieur, Susanne Marie, Internal Medicine/Pediatrics. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Leung, Rey Anthony, Radiology/Neuroradiology. Medical Education, Saint Louis University, Philippines, 1987. Internship, Saint Louis University Hospital of the Sacred Heart, Philippines, 1988. Residency, Baguio General Hospital & Medical Center, Philippines, 1993. Scholarship, UAMS.

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Petursson, Lisa Marie, Internal Medicine/Pediatrics. Medical Education, UAMS, 1997. Internship/Residency, UAMS.

Pitts, Elizabeth Berry, Internal Medicine. Medical Education, UAMS, 1994. Internship/Residency, UAMS.

Riche, Andrew B., Obstetrics/Gynecology. Medical Education, Louisiana State University School of Medicine, Shreveport, 1997. Internship/Residency, UAMS.

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Walker, Shannon J., Radiology. Medical Education, UAMS. Internship/Residency, UAMS.

Walz, Brad Harold, Orthopedic Surgery. Medical Education, Creighton University School of Medicine, Omaha, Nebraska, 1994. Internship/Residency, UAMS.

Ware, Rhonda Michele, Internal Medicine. Medical Education, UAMS, 1996. Internship/Residency, UAMS.

STUDENTS

Bogle, Shawn D.
Boling, Carrie Theresa
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The Arkansas Medical Society Seeks Nominations for the 1998 Shuffield Award

The Arkansas Medical Society is seeking nominations for the 1998 Shuffield Award which will be presented at the annual meeting in Little Rock, April 2-4, 1998.

The Shuffield Award is given each year to recognize lay persons in Arkansas who have done outstanding community work in the health care field. The individual might be a newspaper reporter, television personality, government official, teacher or individual promoting a community or other health related program. The person cannot

be a physician or member of a physician's immediate family.

The nominations may come from the county medical societies or any medical society or alliance member. The deadline for receipt of nominations is Friday, February 6, 1998. Past nominees may be renominated.

If you know someone worthy of this honor, please fill out the form below and return it to the Arkansas Medical Society office.

1998 ARKANSAS MEDICAL SOCIETY SHUFFIELD AWARD

Nominee's name: _____

Highest degree nominee has held: _____

Submitted by: _____

Address of nominee and telephone number: _____

Nominee's place of employment: _____

Title or occupation: _____

Birthplace and year: _____

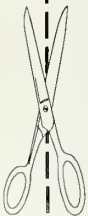
Honors and achievements: _____

Membership in civic clubs or professional organizations: _____

Please attach a short narrative and a curriculum vitae. (Describe nominee's accomplishments and contributions in the area of health care. Please let us know why this person is worthy of this award.)

Please return form and narrative no later than Friday, February 6, 1998 to:

Arkansas Medical Society
P.O. Box 55088
Little Rock, Arkansas 72215-5088
or FAX: (501) 224-6489



Resolution

Louis E. Tolbert, Jr., M.D.

WHEREAS, the members of the Pulaski County Medical Society are sincerely saddened to learn of the death of a respected colleague, Louis E. Tolbert, Jr., M.D.; and

WHEREAS, he was a loyal member of this Society for nearly forty years, always willing to give of his time and talent towards its betterment; and

WHEREAS, Dr. Tolbert's patriotism was evidenced by distinguished service in the Air Force during World War II; and

WHEREAS, Dr. Tolbert's unique blend of skill and sympathy as a physician will be fondly remembered by his patients and colleagues alike;

BE IT THEREFORE RESOLVED:

THAT, this resolution be adopted and filed in the permanent files of the Society; and

THAT, a copy of this resolution be mailed to Dr. Tolbert's family as an expression of our heartfelt sorrow; and

THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted:

Board of Directors

October 29, 1997

By Order of the Memorials Committee

Fred O. Henker, III, M.D., Chairman

James W. Headstream, M.D.

Bruce E. Schratz, M.D.



Things To Come

February 19-21, 1998

Cardiovascular Health: Coming Together for the 21st Century - A National Conference. Hyatt Regency Embarcadero Hotel, San Francisco, California. Sponsored by the National Heart, Lung, and Blood Institute; the Cardiovascular Disease Outreach, Resources, and Epidemiology Program; the University of California, San Francisco; and the California Cardiovascular Disease Prevention Coalition. For more information, call 415-476-5808.

February 21-23, 1998

13th Annual Mardi Gras Anesthesia Update in New Orleans. Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Department of Anesthesiology & Center for Continuing Education, Tulane University Medical Center. For more information, call 504-588-5466 or 1-800-588-5300.

February 22-27, 1998

Advances in Imaging: 1998. The Inn at Prospector Square, Park City, Utah. Sponsored by the Departments of Radiology at Tulane University Medical Center and Louisiana State University School of Medicine. For more information, call 504-588-5466 or 1-800-588-5300.

March 20-22, 1998

4th Annual Clinical Update on Management of the HIV-infected Patient - A Practical Approach for the Primary Care Practitioner. Crowne Plaza Hotel, New York, New York. Sponsored by the Center for Bio-Medical Communication, Inc. and the American Foundation of AIDS Research. For more information, call 201-385-8080.

March 26-29, 1998

National Kidney Foundation, Seventh Annual Spring Clinical Nephrology Meetings, Consultative Nephrology Program. Opryland Hotel, Nashville, Tennessee. Sponsored by the National Kidney Foundation. For more information, call 1-800-622-9010.

April 22-26, 1998

Critical Care Medicine 1998 - 12th Annual Review and Update. Crystal Gateway Marriott, Washington, DC. Endorsed by the Society of Critical Care Medicine and announced by the Center for Bio-Medical Communication, Inc. For more information, call 201-385-8080.

April 29 - May 2, 1998

International Conference on Physician Health. Victoria, British Columbia, Canada. Sponsored by the American Medical Association and the Canadian Medical Association. For more information, call 312-464-5073.

June 23, 1998 - July 5, 1998

12-Day Study Cruise on ms Rotterdam VI - Healthcare in the 21st Century. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored by the University at Sea Continuing Education, Inc. For more information, call 1-800-926-3775.

Breathtaking Decisions

Bioethics, managed care, and end-of-life issues

February 27-28, 1998

Little Rock, Arkansas

Presented by The Center for Bioethics and Human Dignity and Christian Medical & Dental Society together with Trinity International University. The Christian Medical & Dental Society is accredited by the Accreditation Council for CME to sponsor continuing medical education for physicians. The Christian Medical & Dental Society designates this continuing medical education activity for 8 credit hours in Category 1 of the Physician's Recognition Award of the AMA. For more information and to register, call Lou at the Cornerstone Clinic at (501) 224-1105.

Arkansas Medical Society 122nd Annual Session

Mark your calendar now!

For the

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April 2 - 4, 1998

at the

Excelsior Hotel in Little Rock

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mailed out in early February*

Keeping Up

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Spring Sleep Seminar 1998, May 2 - 4, 1998, Arlington Resort Hotel and Spa, Hot Springs, Arkansas. For more information contact Bill Rivers, RPSGT at (501) 442-1272.
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

First Annual Meeting of the American Hernia Society. February 6-8, 1998. Location: Miami Beach, FL. Hours of Category 1 credit offered: 19. Time and Fees to be announced. For more information, call 501-661-7962.

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.
Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08

CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas
Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
FP Journal Club, 2nd Monday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Locations vary. Dinner meeting.
Tumor Conference, 1st Wednesday & 3rd Friday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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All manuscripts should be submitted to Tina G. Wade, Managing Editor, Arkansas Medical Society, P.O. Box 55088, Little Rock, Arkansas 72215-5088. A transmittal letter should accompany the article and should identify one author as the correspondent and include his/her address and telephone number.

MANUSCRIPT STYLE

Author information should include titles, degrees, and any hospital or university appointments of the author(s). All scientific manuscripts must include an abstract of not more than 100 words. The abstract is a factual summary of the work and precedes the article. Manuscripts should be typewritten, double-spaced, and have generous margins. Subheads are strongly encouraged. The original and one copy should be submitted. Pages should be numbered. Manuscripts are not returned; however, original photographs or drawings will be returned upon request after publication. Manuscripts should be no longer than ten typewritten pages. Exceptions will be made only under most unusual circumstances.

Along with the typed manuscript, we encourage you to submit an IBM-compatible 5 1/4" or 3 1/2" diskette containing the manuscript in ASCII format. The manuscript on diskette must be in the same format as stated above. We will return the diskette upon request.

REFERENCES

References should be limited to ten; if more than ten are listed, the author(s) may designate the ten most significant to be printed and readers will be referred to the authors(s) for the complete list. References must contain, in the order given: name of author(s), title of article, name of periodicals with volume, page, month and year. References should be numbered consecutively in the order in which they appear in the text. Authors are responsible for reference accuracy.

ILLUSTRATIONS

Illustrations should be professionally drawn and/or photographed. Glossy black and white photos are preferred. They should not be mounted and should have the name of the author(s) and figure number penciled lightly on the back. An arrow should indicate the top of the illustration. In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material. Up to four illustrations will be accepted at no charge to the author(s). If more than four are necessary, it is understood that the author(s) will be responsible for the reproduction costs.

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Volume 94 Number 9

February 1998



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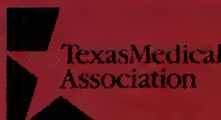
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Cover artwork, titled "Davis Grocery," is by Sheila Parsons, a professional artist who lives at her home and studio in Conway where she operates ART-VENTURES watercolor travel tours around the world. Artwork provided by the Arkansas Artists Registry, a part of the Arkansas Arts Council, an agency of the Department of Arkansas Heritage.

Sex, Death and Fly-Fishing

Alex Finkbeiner, M.D.*

The outdoor writing guru, John Gerach, entitled one of his short stories "Sex, Death and Fly-fishing" from which the title of this editorial is plagiarized. John Gerach related this title to the life-cycle of the Mayfly, a major food source for trout which dominates the entomologic lore of fly-fishing. The Mayfly eggs are deposited on the stream surface, fall to the bottom and live underwater in the nymph and pupa stages for 2-4 years. Then within a 24-hour period they rise to the surface and "hatch" as a magnificent flying insect, mate, deposit their eggs and die. It is during this hatch, and again as the insects fall to the stream surface in their death throes, that the trout engorge on the biomass of protein.

This past summer, my wife and I made our maiden voyage to Alaska and spent a week on the Alagnak River in a remote fishing lodge on the Katmai peninsula. The closest highway was 200 miles away. According to the Alaska Game and Fish Commission, five million (yes, 5 followed by six 0s) salmon migrate up this river annually. This, of course, was why the fishing lodge and we were there. For seven days we caught and released salmon until we literally became tired of catching and fighting them.

On the Pacific Coast there are five species of salmon whose life-cycle consists of spawning in the headwaters of freshwater rivers, a year migration to the open Pacific Ocean saltwater, and a varying time (2-5 years) of feeding on the riches of the ocean attaining weights of 2 to 60 pounds. Then, in a brief several week span they migrate back up the freshwater rivers of their birth to spawn and die. This remarkable life-cycle and homing instinct became even more remarkable as we watched this unfold before our eyes. For, just like the Mayflies, the death of these salmon is the primary source of life for the majority of the living creatures of the wilderness. This incredible amount of biomass of protein is the energy source of trout, eagles, osprey, terns, bear, and all the other animals up and down the food chain in the abundantly populated wilderness.

As I watched this unfold, I could not help but

reflect back on our history of the continental United States on which millions of bison and passenger pigeons and tens of thousands of grizzly bears populated our land. Today on both coasts of the continental US the salmon population has been decimated as were these bison, pigeons and bears.

The biodiversity, richness of wildlife and the self-sustaining natural cycles seen in Alaska no longer exists in the continental US for one reason; man. The early Europeans brought syphilis and smallpox to this continent and those native Americans not subdued by disease were killed by firearms. Agriculture, homesteading, fences, rifles, highways, and DDT decimated the non-human wildlife. Man conquered the land, flora and fauna rather than co-exist. Oh, we've salvaged our collective conscience by creating zoos and reintroducing bison and wolves into a national park (woe to the animal that can not read signs and strays outside the park boundary onto a rancher's land). Somehow, though, the tiger loses its "tigerness" confined to an iron cage just as man's spirit is extinguished in solitary confinement.

While fly-fishing for salmon and trout in Alaska was everything I expected, the spawning, life, and death of the salmon and the beauty and simplicity of this incredible impact of all of life in the region was unexpected. I believe it gave me a glimpse of what the American Indians referred to as the "nature spirit." Quantum mechanics teaches us that any observation or interaction permanently alters both the observed and the observer. My interaction with the region of Alaska permanently altered this observer. My fervent wish is that I minimally altered what I observed.

The inevitability of man conquering the remaining wilderness of Alaska was brought home to me this weekend. While spending time on the Little Red River we drove by what once was a particularly idyllic meadow surrounded by an oak grove. The oak trees were recently cut down and an apartment complex has been built where the trees once grew. Ironically, the complex is called Oak Meadows.

Now, if we can just kill off all those grizzly bears in Alaska, we can make the land safe to build retirement communities we can call Grizzly Meadows.

* Dr. Finkbeiner, a member of the editorial board for *The Journal of the Arkansas Medical Society*, is Professor of Urology in the Department of Urology at UAMS.

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Medicine in the News

Health Care Access Foundation

As of January 1, 1998, the Arkansas Health Care Access Foundation has provided free medical service to 13,423 medically indigent persons, received 25,675 applications and enrolled 50,148 persons. This program has 1,900 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Employee Morale...How Important Is It?

Employees can make you appear as a hero, or a zero. Even the most capable and personable physician cannot maintain a successful practice if his patients are subjected to a surly or unhappy staff. While there are obviously some people that are simply not good employees, for the most part, people want to do a good job and desire to work in a pleasant atmosphere. When this combination is achieved, you and your patients are the big winners. As an employer and supervisor, it is your job to inspire this atmosphere and encourage staff members to perform well.

To accomplish these goals, you must supply your employees with good job descriptions and the training and tools to perform the job. Jobs must be objectively evaluated to make sure that they provide sufficient challenge without overloading the employees to the point that they are unable to fulfill their responsibilities. This is an added challenge in this age of downsizing and reduced revenues, however, overburdened employees become frustrated and pass that frustration along to fellow employees and patients.

All people need to feel appreciated and important. A pat on the back and praise for a job well done provide the positive reinforcement that will inspire pride and an even greater desire to please. When mistakes occur, and they are inevitable, do not overreact or berate an employee for a true error. Nothing is gained by finger pointing that humiliates an employee. This only serves to anger him, and at that point you have lost the ability to effectively communicate. You must first evaluate the incident to make sure you have sufficiently prepared and educated the employee on the correct procedures, then present the employee with his mistake. Make sure you also explain the proper way to perform the task, why the employee's method was incorrect and what repercussions resulted or could have resulted from the error. Treat the employee with respect and dignity and when possible, let him correct the error himself. Also, make sure you are approachable. Perhaps the employee felt forced to make

a decision because he was uncomfortable in asking for the proper procedure.

Another way to raise employee morale is to allow employees to share in the decision making about procedures. You will also be doing yourself a favor as many of the best ideas come from the people who actually do the job. After all, they are "in the trenches" every day and are the most familiar with the complexities of a job. Give them the opportunity to make suggestions. Regular open meetings are usually the best suggestion, but make sure that the employees feel comfortable that their suggestions will be well received and fairly considered. A good way to get the ball rolling at one of these meetings is to ask open ended questions, like "What suggestions do you have for improving ...?"

What does all this have to do with malpractice risk management? As stated before, employees can make you or break you. Patients who are treated well and have a good rapport with the physician and his staff have more confidence in the care they receive, and indeed they do receive better care in an office staffed with confident and pleasant people.

Inspiring employees to work hard and do a good job makes you an employer of people who want to work for you as opposed to people who are only there to collect a paycheck until something better comes along. - *Information provided by Pulse, the American Physicians Insurance Agency, Inc. Fourth Quarter 1997 publication. Article written by Camille Radaker, API risk management specialist.*

Juries Consider More Than "Just the Facts"

It is a common preconception that in a court of law the facts prevail. Interviews with juries show that there are many elements influencing their final decision, the facts of the case being only one of those elements. This is especially true in medical malpractice cases where the facts are often difficult for the lay person to understand.

Jurors report that while the facts are important, the establishment of the defendant's credibility and trustworthiness are extremely significant. Jurors scrutinize the defendant even before the testimony starts for outward signs of his or her competence, professionalism and concern for the patient.

Does the side with the best expert win? According to jurors, the testimony from the defendant is the most important since he or she was present at the time. The information provided by the experts is used by the jury to support the conclusion they have already reached based on their perception of the defendant's

behavior. Houston attorney Barbara Hilburn of Hilburn, Shores & Sherer comments that, "What the jury really focuses on is if the physician did the best that he or she could, if there is a reasonable explanation for what happened, and if the decisions that were made were in the patient's best interest."

Appearance has been revealed as a major component in the jurors' decision making. Ms. Hilburn feels that it is extremely important for the physicians to understand that "it is not only what the physicians say or how they present themselves on the stand, but how he or she acts within the courtroom. I always tell my doctors to remember that they are on stage at all times when they are within a mile of the courthouse. They are advised to never drive fancy cars to the courthouse, that conservative suits and ties are a must, and to avoid fancy shoes or watches. Absolutely no cellular phones are to be used anywhere that the jury can see. Always look interested, never bored. Never lose one's temper or raise one's voice." She emphasizes that "Dr. Marcus Welby is still the doctor of choice at the courthouse." - *Information provided by Pulse, the American Physicians Insurance Agency, Inc. Fourth Quarter 1997 publication.*

Millions Face Obstacles in Accessing Medical Care

Nearly 13 million of the roughly 110 million families in the United States—11.6 percent of all families—said they experienced difficulty or delays in obtaining medical care or did not get the care they needed during 1996, according to new estimates from the Medical Expenditure Panel Survey (MEPS) reported by the Agency for Health Care Policy and Research. The most common barrier, experienced by 7.6 million families or about 60 percent of all those reporting difficulty with access, was not being able to afford the care they needed.

Other reported barriers included insurance-related problems, experienced by 19.5 percent of families with access problems. These problems include an insurance plan not approving, covering, or paying for care; a preexisting medical condition (for which insurance coverage is often restricted); being unable to obtain referrals required by plans; or doctors refusing to accept an insurance plan. Obstacles reported by the remaining roughly 21 percent of families experiencing problems ranged from transportation problems to not being able to arrange for child care.

According to AHCPR Administrator John M. Eisenberg, M.D., these new estimates clearly indicate that access to care continues to be a significant problem. Dr. Eisenberg said delaying or foregoing needed care exacts a human as well as an economic toll. Health problems that might be resolved with timely medical care may only get worse and more expensive to treat

if care is delayed.

Lack of health insurance places families at particularly high risk of encountering barriers. Uninsured families were more likely than the average family to experience problems obtaining needed health care. More than 27 percent, or 3.3 million uninsured families, experienced barriers, including the inability to afford care.

Similarly, Hispanic families were more likely than white or black families to encounter problems. Roughly 1.4 million Hispanic families (15 percent of all Hispanic families) reported barriers. For almost 7 in 10 of these Hispanic families, the primary access problem was that they could not afford the health care they needed.

AHCPR's Medical Expenditure Panel Survey also found that:

*Nearly 18 percent of the civilian noninstitutionalized population had no usual source of health care in 1996. This means more than 46 million Americans had no particular doctor's office, clinic, health center, or other place where they would usually go if they were sick or needed advice about their health.

*The groups most likely to be without a usual source of health care were uninsured persons under age 65 (16.7 million, or 38 percent of this group), young adults ages 18 to 24 (8.5 million, or 34 percent of young adults), and Hispanics (8.4 million, or 30 percent of Hispanics). Young children and the elderly were more likely than adults under age 65 to have a usual source of care. Even so, there were 1.3 million children under age 6 and 2.9 million persons age 65 and older with no usual source of care.

*Among the 82 percent of Americans who did have a usual source of care, nearly 9 of every 10 said they used office-based providers, and the rest said they got their care from hospital outpatient departments, clinics, or hospital emergency rooms. The most commonly used office-based providers were group or clinic practices and family or general practitioners.

These estimates are from the 1996 Medical Expenditure Panel Survey. AHCPR launched MEPS—the successor to its National Medical Expenditure Survey—to provide policymakers and others with up-to-date, highly detailed information on how Americans as a whole and different segments of the population use and pay for health care. This ongoing survey also looks at insurance coverage and other factors related to access to health care.

Detailed findings are in *Access to Health Care in America - 1996 MEPS Highlights 3* (AHCPR Publication No. 98-0002) and *Access to Health Care in America - Sources and Barriers: 1996, MEPS Research Findings 3* (AHCPR Publication No. 98-0001), which includes detailed tables. Both are available from the AHCPR Publications

Clearinghouse. The publications also are available through AHCPR's Web site at <http://www.ahcpr.gov/>, as are micro data files for persons wishing to conduct their own data analyses. — *Information provided by the U.S. Department of Health and Human Services, Agency for Health Care Policy and Research, November 1997.*

CDC Reports First-Ever Decline in AIDS Diagnoses – Treatment and Prevention Advances Spur New Trend

In 1996, for the first time in the history of the HIV/AIDS epidemic, the number of Americans diagnosed with AIDS declined, according to a report published in the *Morbidity and Mortality Weekly Report (MMWR)* in September.

According to this report, "Update: Trends in AIDS Incidence United States, 1996," the incidence (new cases diagnosed per year) of AIDS among people over age 12 declined 6% between 1995 and 1996, from 60,620 cases to 56,730 cases. This decline reflects recent advances in treatment of HIV infection that have lengthened the healthy life span of people living with HIV and the success of HIV prevention and education efforts that have helped to reduce the number of Americans becoming infected with HIV.

"This is remarkable evidence that our efforts in prevention and treatment are allowing more people to live free of HIV while we are extending the healthy lives of those who are infected," said DHHS Secretary Donna Shalala. "We must not let up in our determination to put an end to this epidemic by reducing new infections, developing more effective treatments, and ultimately, developing a vaccine and a cure."

The impact of combination drug therapies—including the use of protease inhibitors—has been evidenced throughout this year as AIDS deaths in the United States have continued to decline. These new data not only confirm the trend of declining AIDS deaths but also indicate that, for many people, the new therapies are helping delay progression from HIV infection to AIDS diagnosis in the first place.

Despite these positive new trends, there still are reasons for concern. While AIDS incidence declined 15% among white gay and bisexual men, the incidence of AIDS among heterosexuals continued to rise, increasing 11% among men and 7% among women. AIDS incidence declined or leveled in all racial and ethnic groups; the largest drop (13%) occurred among whites, followed by Hispanics (5%) and African Americans (0%). There was a significant decline in AIDS incidence among gay and bisexual men who also inject drugs (17% among whites and 13% among African Americans).

"To succeed in the fight against HIV, we have to continue to focus on both prevention and treatment," said Dr. David Satcher, Director of CDC. "Today's find-

ings show we are making progress, but to keep reducing AIDS, we need to maintain a comprehensive effort to provide treatment to those infected while continuing to work to prevent new infections in the first place."

According to CDC, the challenge of prevention will be even greater as the number of people living with HIV and AIDS grows. CDC reports that the number of people living with AIDS (also known as AIDS prevalence) increased 11% between 1995 and 1996. As of December 1996, there were 235,470 Americans reported to be living with AIDS. As progression from HIV infection to AIDS diagnosis slows, the number of people living with HIV (HIV prevalence) also will increase.

In response to the changing epidemic, CDC is taking steps to improve the nation's ability to monitor HIV prevalence and incidence, given the new era in HIV treatment.

"We are approaching a turning point in the way we need to track this epidemic," said Dr. Helene Gayle, Director of CDC's National Center for HIV, STD, and TB Prevention. "As our ability to treat HIV infection has advanced, reports of AIDS cases have become less indicative of recent trends in the epidemic. We must improve our ability to monitor HIV infection in order to continue to effectively track the epidemic as it evolves so that we can appropriately target resources for prevention and treatment."

Currently all 50 states require the reporting of AIDS diagnoses and AIDS deaths to the CDC. Thirty states also require the reporting of HIV infections among adults and/or children. CDC plans to continue working with state health departments, health care providers, and the community to ensure that HIV/AIDS surveillance data accurately reflect the epidemic.

Other important trends in AIDS incidence between 1995 and 1996 include the following:

- *AIDS incidence decreased among men (down 8%), but continued to increase among women (up 2%).

- *AIDS incidence declined in all regions of the country, with greater proportionate declines in the Midwest (10%), the West (12%), and the Northeast (8%) than in the South (1%).

- *By exposure group, AIDS incidence declined among all groups except people infected heterosexually.

- *The greatest proportionate declines in AIDS incidence occurred among white homosexual men (15%) and white and black homosexual men who are also injected drug users (17% and 13%, respectively).

- *The greatest proportionate increases occurred among black and Hispanic men and women infected heterosexually. Among black and Hispanic men infected heterosexually, increases were 19% and 13%, respectively. Among black and Hispanic women infected heterosexually, increases were 12% and 5%, respectively.

"Clearly this new era of HIV and AIDS prevention

brings with it new challenges. Chief among these is the need to ensure that our successes reach all populations. We must ensure that we reach women, youth, and minority communities with effective prevention and quality care," said Dr. Gayle.

For further information, the MMWR report is available on the Internet through the DHAP home page at www.cdc.gov/nchstp/hiv_aids/dhap.htm. Also, single copies are available from the CDC National AIDS Clearinghouse - call 1-800-458-5231 and request Inventory No. D522. - Information provided by the U.S. Department of Health and Human Services publication, HIV/AIDS Prevention, December 1997.

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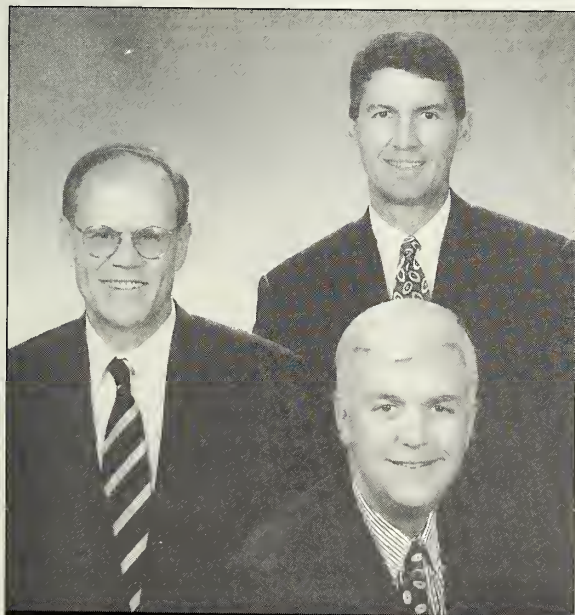
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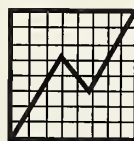
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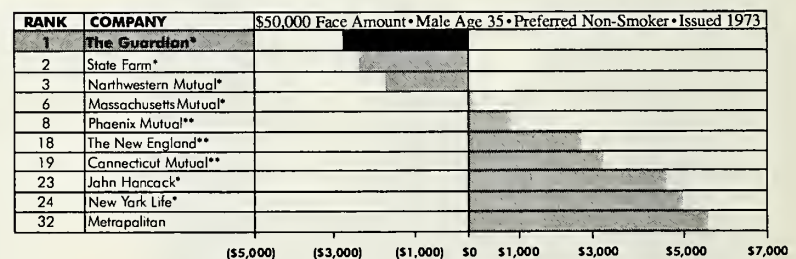
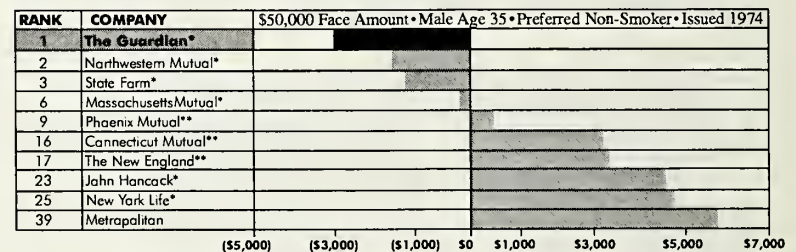
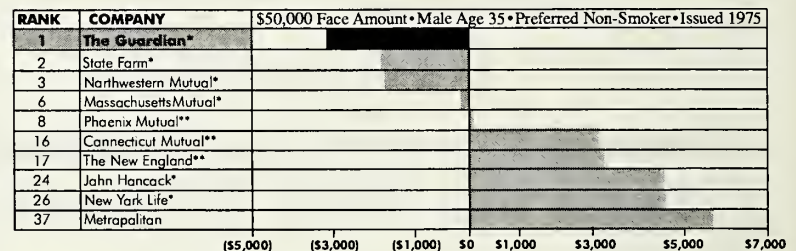
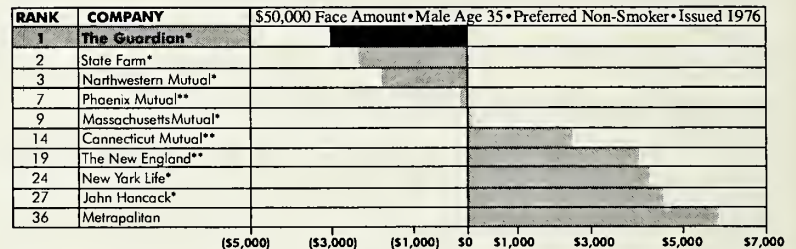
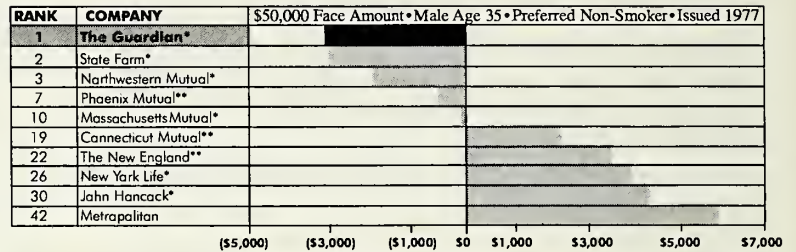
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Instilling Happiness into Medical School

The University of Arkansas College of Medicine's Medical Student Mental Health Program

Linda L.M. Worley, M.D.

Abstract

The University of Arkansas for Medical Sciences (UAMS), College of Medicine's Medical Student Mental Health Services Program, initiated in 1992, has grown into a comprehensive, readily accepted service utilized by one out of four medical students during their matriculation. Students rely on the service to help them with a wide variety of issues and feel secure that their care is confidential.

Introduction

The Medical Student Mental Health Services Program was initiated in January 1992 by the Dean of the College of Medicine in response to an LCME (Liaison Committee on Medical Education) site visit. Only a few students utilized the service initially, often allowing their difficulties to become extreme. Students feared that their care would not be confidential, thus harming their future career. This myth was perpetuated by some parents and some faculty who cautioned students not to seek help. Students with very treatable difficulties (such as depression) struggled along academically and interpersonally, often losing the very dreams they sought. When students become overwhelmed with sadness, anxiety or frustration they are incapable of focusing their full intellectual capacity on new learning.¹

Virtually all U.S. and Canadian medical schools provide some form of mental health service for their students.² These programs are diverse and rarely provide the comprehensive level of care afforded to our students at UAMS, i.e., only 44% of programs were run by psychiatrists and 47% required third party funding from the student's health insurance² (thus decreasing their level of confidentiality).

Description of Program

The UAMS College of Medicine Medical Student Mental Health Service Program has matured since July 1993, into a comprehensive program. Students learn of its existence during the three-day Freshman Medical Student Orientation Program. Select incoming freshman (often seeking a second career) attend a pre-matriculation course and learn the secrets to balancing their lives to achieve inner peace and happiness. The director of the service warmly welcomes incoming freshmen to medical school during orientation and delves into the psychological journey of becoming a physician. Students explore the etiology of the stress, i.e., the massive volumes of new information that they must master, the lack of control over their lives, the responsibility, facing death and dying, etc. They learn about stress related physiological changes,³ such as the increased susceptibility to infection,⁴ gastrointestinal distress, hypertension, and depression. They are encouraged to adopt sound coping strategies such as exercising and nurturing healthy relationships.⁴ They are given examples of predecessors who have allowed their substance abuse or depression to go untreated and who have lost their career and/or relationships as a result. They are encouraged to be proactive and to take excellent care of themselves. They learn the signs and symptoms of depression, anxiety disorders, substance abuse, and relationship difficulties and are encouraged to seek confidential care immediately. They are encouraged to develop into the best person and future physician that they are capable of becoming.

Several weeks into the semester a personalized mailing is sent to all medical students reminding them of the existence of the confidential services available to them. They are also informed of our spouse support group.

Throughout the year, our students seek help. They

* Linda L.M. Worley, M.D., is Assistant Professor at UAMS, Department of Psychiatry and Director of Medical Student Mental Health at the College of Medicine.

are treated individually, in groups, and as couples. Anonymous satisfaction surveys are sent annually to students who have utilized the service. They are asked to rank on a scale of 1 to 5 their responses to a variety of questions about the service (Scale: 1=strongly agree, 2=agree, 3=uncertain, 4=disagree, 5=strongly disagree). The mean scores of the surveys are shown herein: They would recommend the service to a friend (score 1.19), would return if they had a problem again (score 1.44), and they feel secure that their care is confidential (score 1.22).

The average number of appointments per student seeking help is 6. As of June 30, 1997, the percentage of students who have utilized the service at some point during their matriculation are: 16% of the class of 2000; 21% of the class of 1999; 23% of the class of 1998; and 26% of the class of 1997.

Students seek help when they are in distress. They present with test taking anxiety, mood disorders, academic failure, attention deficit disorder, obsessive compulsive disorder, eating disorders, relationship crises, life crises, coping with traumatic painful losses and many other problems. Freshmen and sophomores present more often with anxiety, depression, and academic difficulty; while juniors come to cope with grief over losing patients, anxiety, and over career choice. Seniors often come attempting to make difficult choices about their careers and relationships.

Case Example

(Cases are altered to insure absolute confidentiality.) Matthew dreamt of being a physician since he was 8. He remembered the day his hands shook as he opened that fateful letter from the College of Medicine... "Congratulations... You have been accepted!" Matthew's feet never hit the ground after that day. Finally, his dream was coming true. His family was bursting with pride, their son was going to be a doctor!

Matthew remembers feeling keyed-up and ready to go. He tuned-out some small statured doc who came to orientation, "telling us how hard it was going to be... emotionally on us." His thoughts were racing, "Yeah right, I'm never going to need to talk to her. I've wanted this all my life."

The semester started. Matthew recounts: I loved it at first. I studied day and night. The first test came and went but I couldn't keep up, I was getting buried. I made the first C of my life. My parents would call to see how my grades were. Dad gave me a barrage of advice ranging from advice for my study techniques to my social life. He didn't have a clue... what social life? Mom kept asking me how I was eating. When they came down on weekends she would tell me I didn't look well and that I was losing too much weight. She showered me with care packages filled with my favorite treats. I didn't care about eating and the packages were piling up on my filthy kitchen counter. My apartment was

a wreck. This wasn't like me at all. I felt so irritable and couldn't stand to be around anyone. My mind felt foggy and my relentless studying became increasingly futile and frustrating. I received a certified letter from the department of anatomy saying that I was in academic jeopardy. I began hating medical school, what it was doing to me and my life. I didn't understand. This was all I ever wanted to do with my life and I couldn't cut it. I wasn't sleeping, eating, couldn't concentrate. I was shocked when for the first time in my life I seriously began considering suicide.

My friend John came up to me and asked me how I was doing. I guess he saw the changes in me. He told me about his bout of depression in his first year and how it made him completely change. He encouraged me to go for help. It was really hard to make that call and to go. I really pride myself on being independent and handling things on my own. I'm glad I did though. It took a couple of weeks before I began to think clearly again. By a month I was beginning to feel like my old-self and my grades were picking up, and I was actually loving what I was learning.

The director of the service also serves as a faculty advisor for the Student Advocacy Council. Together, they select appropriate films for discussion over lunch to address the needs and concerns of the student body as a whole. Past lunch discussions have focused on issues of death and dying "On the Edge of Being," and on the psychological trials and tribulations associated with becoming a physician, "On the Making of a Doctor." This year's discussions will include a continuation of the psychological journey of a medical student as well as a new multi-specialty panel presentation by physicians introducing students to the requirements, training and lifestyle possibilities within their respective specialties.

Future directions include the development of a relationship enhancement program designed to maximize the success of our medical students' marriages. This project will involve marriage encounter weekend retreat(s), led by skilled facilitators familiar with the trials and tribulations of medical marriages.

The College of Medicine Medical Student Mental Health Services program has been such a success that other colleges at UAMS (pharmacy, etc.) are exploring the development of similar programs to meet the needs of their students.

Summary

The Office of Medical Student Mental Health Services was established to meet a need for confidential counseling services for students. The service gradually gained the trust and acceptance of students who readily seek care when they are in distress for a wide variety of reasons. The goal is to facilitate the overall development of excellent physicians for the state of Arkansas; Physicians who have empathy, skills, and knowledge.

Acknowledgments: Generous gratitude is extended to I. Dodd Wilson, MD, the Dean of the College of Medicine for making this program possible. Additional appreciation goes to Jay H. Menna, Ph.D., Assistant Dean for Medical Education, for his assistance in the preparation of this manuscript.

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Camden Looks to Its Past to Build Its Future

Sheila Yount*

The key to the future of this south Arkansas city may well be its past. That's what civic leaders in this city of about 14,000 people are saying these days as they work to preserve the city's heritage and build tourism. They say Camden, with its antebellum homes and rich Civil War history, is ripe to become a popular tourist destination.

"What we are trying to do in Camden right now is turn back toward the past," says Mayor Chris Claybaker. "In fact, one of the slogans we use is, 'Camden, Arkansas: Where History Lives.'"

Camden, one of Arkansas's oldest settlements, was known as Ecore a Fabre or Fabre's Bluff until 1844 when Gen. Thomas Woodward, a prominent settler, renamed the town. Prior to the Civil War, Camden was a thriving river port serving area cotton farmers and was, for a time, the second largest town in the state. The Union Army occupied Camden during the Civil War, and its generals stayed in homes that still stand today. Also, significant battles were fought nearby.

In more recent decades, Camden has grown by attracting defense-oriented industries. Claybaker notes that in the 1970s and 80s, Camden was a boom town with a population approaching 20,000. But defense spending cuts stalled Camden's economy in the early 1990s, prompting city officials to look for other approaches to development.

"This town has never really pushed for any tourism dollars and personally, as mayor, I see that as one of the top three areas that we need to pursue," Claybaker says. "I think of tourism as an industry. To me, it is just as viable as the 600-job factory coming in."

A core ingredient in the city's tourism recipe is a historic district containing antebellum homes. Especially impressive is Washington Street where visitors can take a driving tour to see the Graham Gaughan-Betts Home built in 1856 and occupied by Union Gen. Frederick Steele; the Elliot-Meek Home built in 1857, and the McCollum-Chidester home built in 1847.

During the Civil War, the home was owned by Col. John T. Chidester, a stagecoach operator. Confederate Generals Sterling Price and Steele stayed at the home at different times during the Civil War. It is believed that Steele stayed in the east bedroom during the Battle of Poison Spring in April 1864. At the time, the Union Army occupied Camden, but soon fled back to Little Rock. The home is furnished with period antiques, most of which are original to the Chidester family. The home's authentic look made it a prime setting for a portion of the TV mini-series "North and South," which was filmed in 1985.

Civil War buffs can continue their tour of Camden by exploring the site of Fort Southerland, one of several sites of gun emplacements located in Camden during the war. The fort site, located on a hill off Bradley Ferry Road, is now a city park. A historical marker tells about the fort and gun emplacements which are also clearly visible.

"It is a very good example and one of the last examples you will find of the earthwork fortification," says Townsend Mosley, a Camden resident and Civil War historian.

Historical records indicate there were between five and nine gun emplacements that wound around the city in a crescent shape during the war, Mosley notes.

While Camden was well fortified in anticipation of battles, none were actually fought here. However, just about 14 miles west of Camden, hundreds of young men lost their lives in the Battle of Poison Spring on April 18, 1864. The battle occurred because the Union Army was running low on food and supplies. Steele sent a group of men with 198 wagons west of Camden to collect corn and other food. As the Union forces were returning to Camden, the Confederates clashed with them at Poison Spring and captured the forage train. By April 26, 1864, Steele was ready to retreat to Little Rock.

Today, the battlefield, located off Arkansas 76 west of Camden, is an historic state park featuring interpretive markers and a picnic area. You can imagine scenes of the battle as you take a leisurely walk through the woods on a trail that winds past the springs.

* Sheila Yount is a travel editor with the Arkansas Department of Parks and Tourism.

Many of the young Confederate soldiers who died in this battle are buried at the Confederate Cemetery at Maul Road and Adams Street. There are more than 200 graves of Confederate soldiers, most of whom were unknown, in the cemetery.

But there's more to Camden than Civil War sites. Many visitors enjoy exploring the city's thriving downtown, which has specialty shops and an antique mall. Festivals are another tourist draw. Mosley and several other dedicated citizens have developed a festival to celebrate the city's love affair with daffodils and gardens. It is aptly named the Daffodil Festival and the 1998 event will take place March 13-15. The main festival site is at the estate of Dennis and Roxane Daniel at 2220 Maul Road. Here, visitors can tour an eight-acre site, which includes a Japanese Garden and other gardens with more than 1,000 varieties of daffodils. Garden-related crafts are for sale during the festival, and other activities are planned. Several other gardens throughout Camden, as well as some of the city's historic homes, will also be open for tours at this time. A collection of authentic log cabins, one of which dates to 1835, will also be available for touring at the Ralph Hale Farm at 638 Fairview Road.

Because of the success of the Daffodil Festival, 12 area gardens will be open for tours beginning April 1, 1998, and continuing through October. Visitors can

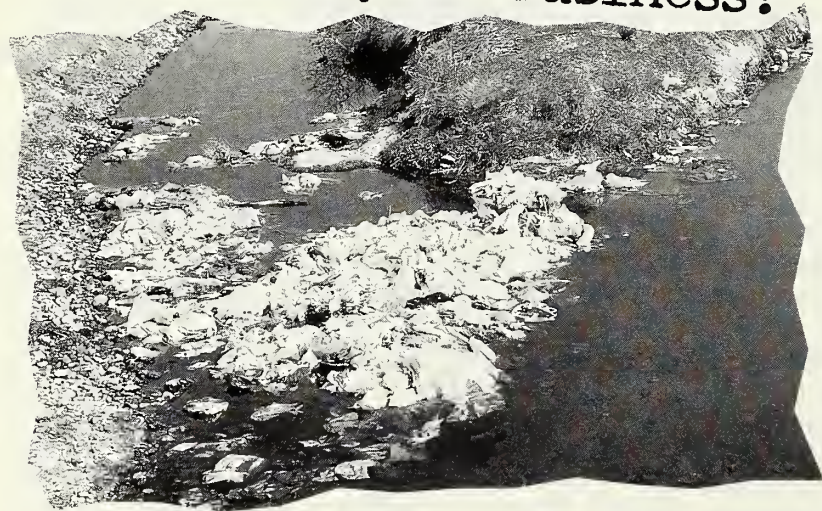
make advance arrangements to see the gardens by calling the chamber of commerce at 870-836-6426.

A Camden tradition is the Tate Barn Sale, held each September at the Tate Farm, Tate and Oakland streets. The Barn Sale, hosted by the Camden Business and Professional Women's chapter, was the brainchild of the late Ruth Tate. Each year, visitors and locals gather at the farm with its landmark 1886 four-story barn to buy arts and crafts and sample a range of good food.

Visitors who would like to further relish the city's history and hospitality may do so by staying over at one of the city's three bed and breakfasts -- the Umsted House, the Martin-Carnes-Milner Bed and Breakfast, and Milner's Bed and Breakfast. The Umsted House, located at 404 Washington St., was built in 1924 for Sidney Albert Umsted, a businessman who made a fortune during the 1920s oil boom in south Arkansas. It is operated by James L. Silliman. Nearby at 132 California St., innkeeper Richard Milner operates the Martin-Carnes-Milner Bed and Breakfast, located in a home which also dates to around 1924. Milner also recently opened Milner's Bed and Breakfast in a 1920s-era home at 128 Agee NW.

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Cervical Spine Injury - Quadriplegia

J. Kelley Avery, M.D.

A 33-year-old intoxicated man became involved in a fight with another man. During this altercation, the patient was thrown down against the pavement, the most obvious injury being a long laceration of his forehead on the left. Almost immediately 911 was called and within 18 minutes the injured man was in the emergency department (ED) of an urban hospital.

The initial ED note indicated vital signs that were normal, described the laceration, and stated, "States unable to move arms." An untimed note by the ED physician records the laceration, other abrasions, "neck supple?," and states, "Full range of motion in all extremities." Orders included Philadelphia collar, cross table lateral films of the C-spine, CT C-spine, and blood ETOH. Vital signs recorded at four and six hours after admission to the ED were again recorded as being in the normal range.

A second untimed note by the ED physician recorded the repair of the laceration of the forehead and stated that the x-rays had shown a compression fracture of C-6 and that the patient was being held in the ED for observation because he was severely intoxicated. The blood alcohol level was reported at 256. Eight hours after admission to the ED, the CT was reported as showing a fracture of C5-6, with bone fragments in the spinal canal and physical findings consistent with cord damage at that level. A neurosurgical consultation was requested at this time by the admitting ED physician. Here time becomes confusing. A shift change occurred in the ED, and both ED physicians are on record during the first hour of that shift, which began at 7 AM, seven hours after the patient was first admitted to the department. The second ED physician records normal C-spine films 15 minutes before the note by the first ED doctor that ordered the neurologic consultation. Within five minutes of the "normal C-spine" report, the CT report indicated the fracture noted by the first ED physician.

About 10 hours after admission, the spinal cord

injury protocol with large doses of steroids was begun, with the caveat that the hospital pharmacy had only half enough of the drug, and the rest was being obtained from another pharmacy. It was 12 hours after the injury that the remaining steroid was obtained and given.

Eleven hours after the patient was admitted to the ED, the radiologist who reported a "normal C-spine" corrected that report by an addendum stating that in retrospect, the fracture was possibly discernable on the plain oblique film.

As the patient's intoxication began to clear, the complaints of pain became more prominent. The neurosurgeon's evaluation of the patient concluded with the decision to immobilize the patient's neck using Gardner-Wells tongs. The course of the planned surgical treatment required transfer of the patient to another facility.

After the immobilization and the subsequent surgery, there remained a long course of rehabilitation. Four months after injury the patient was stable enough to be discharged home to continue rehabilitation treatment. At this time the patient was regaining more function in his left arm and hand.

A lawsuit was filed charging that the first ED physician and the radiologist were negligent. The contention was that the ED physician did not properly assess the patient's injury in a timely fashion, and did not stabilize the patient in a timely manner. The radiologist did not properly interpret the x-rays, leading to a failure to diagnose and treat the patient's injury in a timely fashion. A large settlement was necessary.

Loss Prevention Comments

The events in this case leading to the lawsuit, and the subsequent loss either by settlement or jury award, are repeated, with variations, with frightening frequency. The common features are an intoxicated patient, an injury, a failure to appreciate early indications of the severity of the situation, and less than adequate x-ray examination or interpretation. The points of emphasis are obvious in retrospect, but fre-

* Dr. Avery is Chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Co., Brentwood, TN. This article appeared in the December 1994 issue of the *Journal of the Tennessee Medical Association*. It is reprinted here with permission.

quently are obscure at the time of the initial encounter.

It is difficult to evaluate a patient who is markedly intoxicated. In spite of the severity of the injury, the patient is frequently somnolent whether or not there is any evidence of head injury. They do not respond appropriately to history-taking, initial examination, or pain. Sometimes they are combative and abusive, requiring the patience and persistence of a saint to adequately assess the situation. We are less likely to be sympathetic and caring toward such a patient, more likely becoming angry at being disturbed by such an obnoxious individual!

However, such a patient will frequently give very important information or show significant physical findings during the patient evaluation. That includes listening to what is said. In this case, the first note on the record was, "States unable to move arms." One has to wonder if this complaint was communicated to the physician verbally at the time, or if the recorded statement was the only way the doctor knew about it; if the latter was the case, how soon was the note read? At any rate, this vital piece of information was not acted on promptly.

The recorded statement by the ED doctor, "Full range of motion all extremities" is confusing. Was this a full range of passive motion he was talking about? Did the statement confuse the issue for subsequent examiners?

This patient was brought in with a cervical collar in place. Is it appropriate to do the necessary examination to record "neck supple?" Could further neurologic injury have been done by that maneuver?

How often is a cross table lateral x-ray of the C-spine adequate? How often does that view show all the cervical vertebrae? How often does the attending ED physician report in his note just how many of the vertebrae are seen and the course of action to be taken to secure more help from radiology? How frequently does the ED physician call the radiologist in the middle of the night to assist in the evaluation of this kind of patient or the adequacy of the films that have been taken? The confusion in the record of multiple physicians reporting on the x-rays of the spine, including the radiologist's initial report of a normal C-spine, although corrected quickly, suggests that there might have been some delay in appropriate action.

The delay in instituting the spinal cord injury protocol in a patient who comes into the ED with the statement "I can't move my arms" is hard to overlook. Why was there a delay? Even in the face of an inadequate supply of the drug in the ED, why wasn't the steroid begun sooner? Immobilization of the neck and the subsequent stabilization occurred in a timely manner once the appropriate people were involved.

The many questions raised in the discussion of this case all have some clinical relevance. They are prompted by the record. In this case, as in any other, it is vital that the record correctly reflects the plans

and actions of the treatment team. Here that includes the ED physicians and nurses, the radiologists, and the specialists called in consultation. The sum of these questions does not begin to approach the number of questions asked by the plaintiff's attorney after the suit is filed.

Here we have a young man left quadriplegic by an injury that was presented to us within 20 minutes of its occurrence. Did any of our actions cause the injury in the first place? No! Did any of our actions contribute to this devastating result? Probably not, but, maybe so!

Arkansas Medical Society Publications

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David D. Griffin, M.D.*
Jon P. Lindemann, M.D.*
J. David Talley, M.D.*

Cardiac AL-Amyloidosis In Multiple Myeloma

Amyloidosis is a general term describing a diverse group of diseases that share the common feature of extracellular deposition of an insoluble fibrillar protein (amyloid) in organs and tissues. Although the precursor proteins that form the fibril deposits are diverse and often unrelated, all result in deposition with a similar beta-fibrillar structure. These deposits stain with Congo Red, appearing apple-green under polarized light microscopy. Amyloidosis is often classified based upon the precursor proteins involved, as well as whether the involvement is systemic or localized.¹

In the United States, primary AL-amyloidosis is the most common form of systemic amyloidosis and is associated with plasma cell dyscrasias (80%) or multiple myeloma (20%). The precursor protein responsible for AL-amyloid deposition is identical to the variable region of immunoglobulin light chains (lambda or kappa).² Cardiac involvement is more likely to occur in AL-amyloidosis, often resulting in increased ventricular wall thickening and the development of signs and symptoms of congestive heart failure. We report a patient with multiple myeloma and cardiac amyloidosis and review the clinical manifestations, laboratory evaluation, and therapeutic alternatives of this condition. This review supplements prior discussions of this disease.³⁻⁵

Patient Presentation

History and Physical. A 68 year-old male with a history of multiple myeloma and chronic renal insufficiency was referred for cardiac evaluation prior to autologous bone marrow (stem cell) transplantation (see complete problem list, Table 1). Prior renal biopsy showed amyloid deposits (lambda light chains). He had undergone prior chemotherapy with melphalan, prednisone, dexamethasone, and interferon. He presented with progressive lower extremity edema and

dyspnea. He had no previous history of systemic arterial hypertension or coronary artery disease. Physical examination was significant for 2+ bilateral lower extremity edema, but was otherwise normal.

Laboratory Evaluation. Roentgenogram of the chest showed mild cardiomegaly, but no pulmonary congestion. Electrocardiogram showed normal sinus rhythm with first degree atrioventricular block and left axis deviation.

Two dimensional (2D) echocardiogram demonstrated concentric left

ventricular hypertrophy (Fig. 1), normal left ventricular internal dimensions, global hypokinesis, decreased left ventricular systolic function with a calculated ejection fraction of 38%, and abnormal left ventricular diastolic relaxation suggested by prolonged isovolumic relaxation time of 120 msec (normal ≤ 110 msec, Fig. 2). In addition, the left atrium, right atrium, and right ventricle were dilated. Mild mitral and aortic regurgitation were evident by color flow imaging and a very small pericardial effusion was present. Endomyocardial biopsies were obtained from the right interventricular septum and showed lambda light chain deposition consistent with AL-amyloidosis.

Treatment. Symptomatic improvement was achieved with careful use of diuretics. Since his evaluation, he has undergone arteriovenous fistula placement with anticipation of hemodialysis, as well as peripheral blood stem cell collection in preparation for support after high dose melphalan.

Clinical Manifestations

Amyloid deposition may occur throughout the heart, including the sinoatrial node, atrioventricular node, and bundle branches. In addition, the cardiac valves, pericardium, and coronary arteries may also

Table 1: Complete Problem List

1. Multiple myeloma →
 - a. cardiac AL-amyloid
 - b. renal involvement

* Drs. Griffin, Lindemann and Talley are with the Division of Cardiology, Department of Internal Medicine at UAMS.

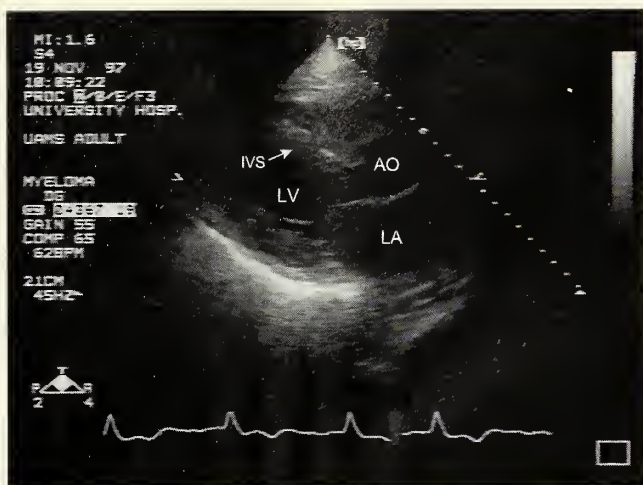


Figure 1: Two dimensional echocardiogram (long-axis view) demonstrates gross left ventricular thickening. The interventricular septum (arrow) measures 20 mm (normal less than 11 mm). Abbreviations: Ao = aorta, IVS = interventricular septum, LA = left atrium, LV = left ventricle

be involved.⁶ Symptoms often include fatigue, weight loss, dyspnea, lightheadedness, ascites, and peripheral edema.

Right sided heart failure due to restrictive cardiomyopathy is the most common presentation in cardiac amyloidosis.⁷ Peripheral edema, elevated jugular venous pressure, and hepatomegaly are common findings. An inspiratory increase in venous pressure (Kussmaul sign) may also be present. Symptoms of left sided heart failure due to decreased systolic function are another common presentation. Amyloid deposition in the atrium leading to the loss of atrial transport, despite electrocardiographic evidence of sinus rhythm, has also been described as a possible precipitating factor of congestive heart failure.⁸ Orthostatic hypotension may occur as a result of infiltration of the autonomic nervous system or blood vessels. Although abnormalities of impulse formation and conduction are a less common form of presentation in AL amyloidosis, a variety of cardiac arrhythmias can occur.^{6,9} Atrio-ventricular conduction defects, sinus node dysfunction, atrial tachyarrhythmias, and complex ventricular rhythms may be observed.

Furthermore, the presence of macroglossia, carpal tunnel syndrome, or spontaneous periorbital purpura (raccoon-eyes) should raise the suspicion of amyloidosis.

Diagnosis

A clinical clue to diagnosis of cardiac amyloidosis is hemodynamic deterioration after taking calcium channel blockers or digoxin. With laboratory evaluation, the chest roentgenogram usually reveals a normal or mildly enlarged cardiac silhouette. Pulmonary congestion may also be present. The electrocardiogram

is typically abnormal and may show diffusely diminished voltage, "pseudoinfarction" or poor R wave progression in the right precordial leads, AV-conduction defects, or atrial fibrillation.

During cardiac catheterization, restrictive hemodynamic pressure wave-forms may be observed, including the so-called dip and plateau sign (or square root sign).⁹

Echocardiographic features include concentric left ventricular thickening, diffuse granular intramyocardial sparkling, dilated atria, thickened interatrial septum, systolic dysfunction, and diastolic filling impairment. Pulsed wave Doppler evaluation of left ventricular inflow has been shown to be an important predictor of survival in cardiac amyloidosis.¹⁰

Endomyocardial biopsy is virtually always diagnostic of cardiac AL amyloidosis and is the leading method of diagnosis.^{9,12}

Treatment

The treatment for cardiac amyloidosis with myeloma is basically the same as the treatment of the multiple myeloma. Treatment with high dose intravenous melphalan with autologous blood stem-cell support has been reported to result in remission of clinical symptoms of cardiac amyloidosis in approximately 50% of patients.¹³

Long term outcome of patients undergoing cardiac transplantation is limited. Progression of disease in other organs and recurrence of disease in the transplanted heart has lessened enthusiasm.⁹

Although colchicine has been shown to be beneficial in patients with amyloid due to Familial Mediterranean Fever (a secondary form of systemic amyloidosis), evidence of its efficacy in AL amyloidosis is lacking.¹

Congestive heart failure symptoms can be managed with careful use of diuretics. Calcium channel blockers, beta-blockers, and digoxin should be used

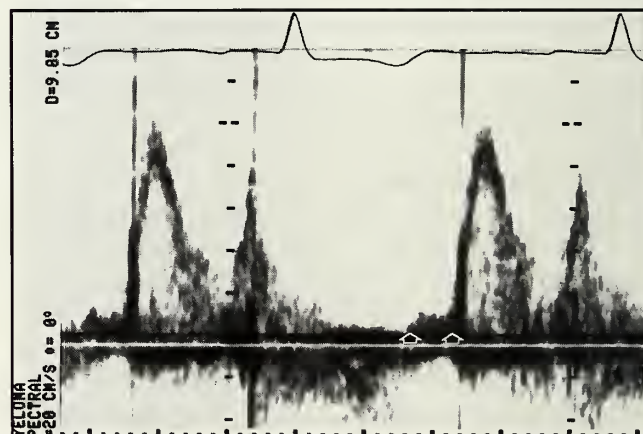


Figure 2: Pulsed wave Doppler of left ventricular inflow demonstrating prolonged diastolic relaxation. The isovolumic relaxation time (arrows) measures 120 msec. (normal ≤ 110 msec.).

with extreme caution in patients with cardiac amyloidosis due to increased drug binding leading to toxicity. Atrial fibrillation can be managed with amiodarone.⁹ Sick sinus and symptomatic bradycardia can be treated with pacemaker placement.

Prognosis

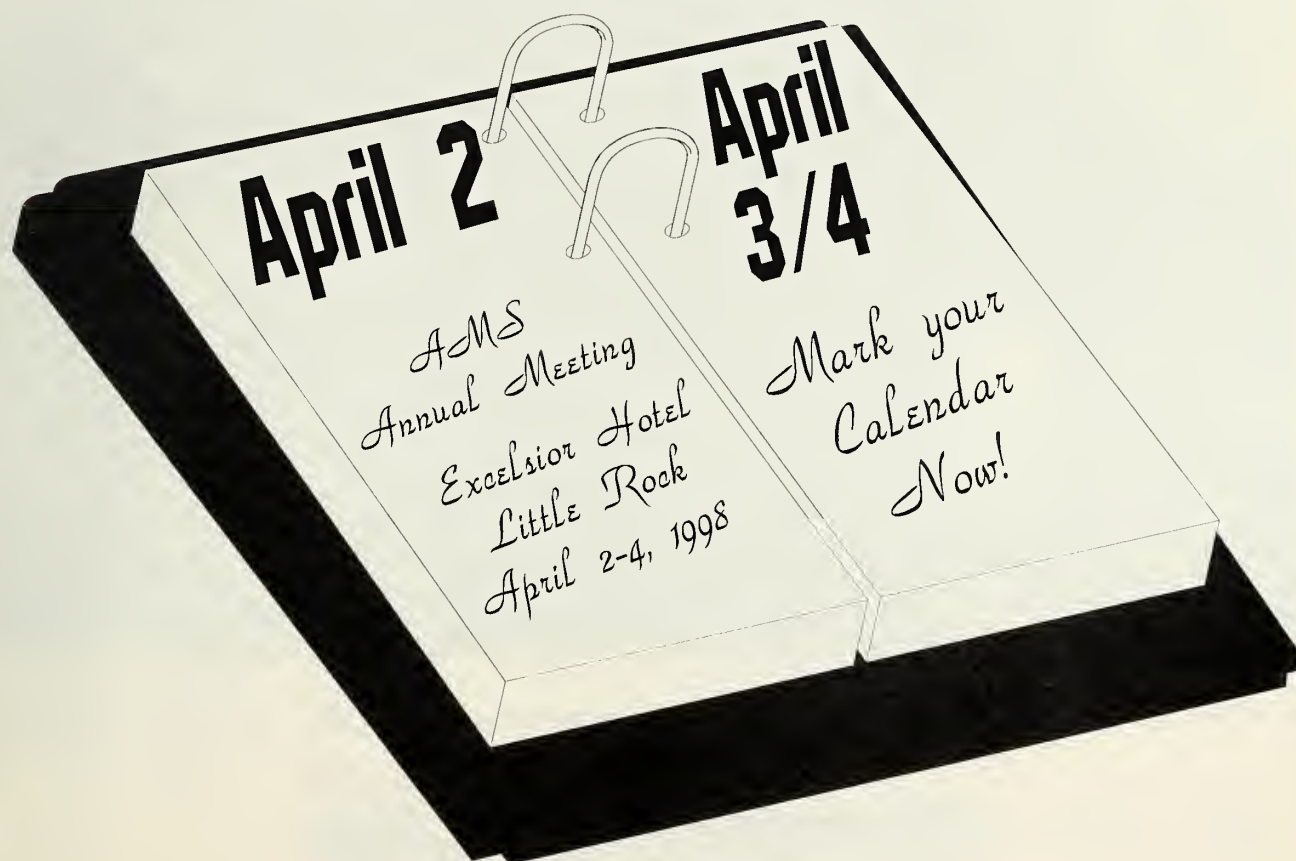
Median survival in patients with cardiac AL-amyloidosis is one to two years.¹ Klein and colleagues demonstrated that a restrictive pattern by Doppler evaluation of left ventricular inflow resulted in a 49% probability of one-year survival, whereas the absence of a restrictive pattern was associated with a 92% probability of one-year survival.¹⁰

Acknowledgments: The authors appreciate the assistance of Nancy Patterson, BSN, RDCS, and David Goodwin, RCPT, in the preparation of this manuscript.

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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Influenza Update

Arkansas

As of early January 1998, the Arkansas Department of Health (ADH) has obtained four positive influenza cultures from Pulaski and Cross Counties. All are type A (subtype unknown). All three specimens from Pulaski County were from persons of other states (Texas, Mississippi and Alabama). Twenty cultures from throughout Arkansas are currently pending. Flu activity in Arkansas is currently classified as "sporadic."

United States

Through the last week in 1997, laboratory confirmed influenza type A has been reported from 43 states. Influenza type B has been reported from four states plus the District of Columbia.

Flu activity in states bordering Arkansas for the last week in 1997 was reported as "widespread" in

Texas and Tennessee and "sporadic" in Louisiana, Missouri and Oklahoma. Mississippi did not submit a report.

From late September through December 1997, the U.S. World Health Organization (WHO) Collaborating Laboratory has tested 18,478 specimens for respiratory viruses, and 333 (2%) were positive for influenza. Three-hundred-twenty-nine (99%) of these were type A. All of the type A isolates that have been subtyped are A(H3N2). The four influenza type B viruses reported through the WHO laboratory system were identified in the District of Columbia, New York, North Carolina and West Virginia.

For more information in influenza in Arkansas or to report outbreaks, please call the ADH Division of Communicable Disease and Immunization at (501)661-2102 during normal working hours.

Reported Cases of Selected Diseases in Arkansas Profile for November 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

Reportable Diseases	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1996	Total Reported Cases YTD 1995	Total Reported Cases 1995
Campylobacteriosis	169	230	241	140	153
Giardiasis	212	162	182	125	131
Shigellosis	259	157	176	130	176
Salmonellosis	439	434	455	317	338
Hepatitis A	218	466	500	600	663
Hepatitis B	66	87	93	72	83
Hepatitis C	2	7	7	NR	NR
HIB	0	0	0	1	1
Meningococcal Infections	38	32	35	33	39
Viral Meningitis	22	35	38	32	33
Ehrlichiosis	22	7	7	14	14
Lyme Disease	25	27	27	11	12
Rocky Mountain Spotted Fever	24	22	22	31	31
Tularemia	23	24	24	20	22
Measles	0	0	0	0	2
Mumps	1	1	1	6	6
Gonorrhea	4287	4754	5050	5489	5437
Syphilis	367	691	706	989	1017
Legionellosis	0	1	1	6	8
Pertussis	60	14	14	59	59
Tuberculosis	163	183	225	212	271

NR Not reportable

In Memoriam

Thomas Murray Ferguson, M.D.

Dr. Thomas Murray Ferguson of West Memphis died Sunday, January 4, 1998. He was 74. He is survived by two daughters, Nancy Daniel and Leigh McDaniel, both of West Memphis; and a son, Dr. Scott Ferguson of West Memphis; a sister, Mrs. Buford Clifton of Memphis; 11 grandchildren and two great-grandchildren. Another son, Thomas Murray Ferguson, Jr., was killed in an automobile accident in 1979.

William W. Scott, M.D.

Dr. William W. Scott of Pocahontas died Sunday, October 26, 1997. He was 73 years of age. He is survived by his wife, Helen Jayne Barre Scott; two sons, Warren E. Scott of Little Rock and Timothy B. Scott of Pocahontas; a daughter, Karen Scott Olvey of Pocahontas; seven grandchildren; one great-grandchild; and a sister, Mary Josephine Moore of Nashville, Tenn.

Lt. Col. Daniel J. Scroggie, M.D.

Lt. Col. Daniel J. Scroggie, M.D., of Harrison died Monday, December 8, 1997. He was 38. He is survived by his wife, Debbi; children, Michael, Maggie and Mallorie, Jessyka and John Hardin all of the home; parents, Jesse and Velora Scroggie of Tucson, Ariz.; Bob and Eileen Locke of Paola, Kan., sister, Mary Rosasco of Southbury, Conn.; three brothers, Paul Scroggie of Moriarity, N.M., Stephen Scroggie of El Paso, Texas, and Carl Scroggie of Paola, Kan.; and many nieces and nephews.

Garland Durwood Wisdom, M.D.

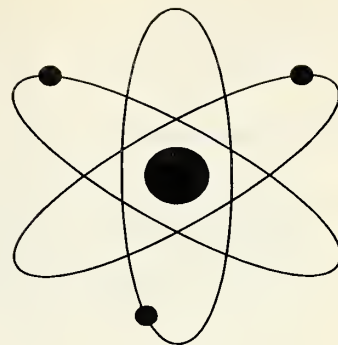
Dr. Garland Durwood Wisdom of Jonesboro died Saturday December 6, 1997. He was 78. He is survived by his wife, Mrs. Farrell Wisdom of the home; two sons, Dr. R.T. Wisdom of Germantown, Tenn., and Mark Wisdom of White Oak, Texas; a sister, Shirley Phillips of North Little Rock; three brothers, Forrest Wisdom of Jonesboro, Shirrell Wisdom of Beebe and Dean Wisdom of Little Rock; nine grandchildren; and 12 great-grandchildren.



Radiological Case of the Month

Author

Steven R. Nokes, M.D.



History:

A 70-year-old female presented with abdominal pain. A CT scan of the abdomen (Figure 1) with contrast revealed a 4 cm right adrenal mass. In and out of phase MR images (Figure 2) of the adrenal gland were performed for characterization.

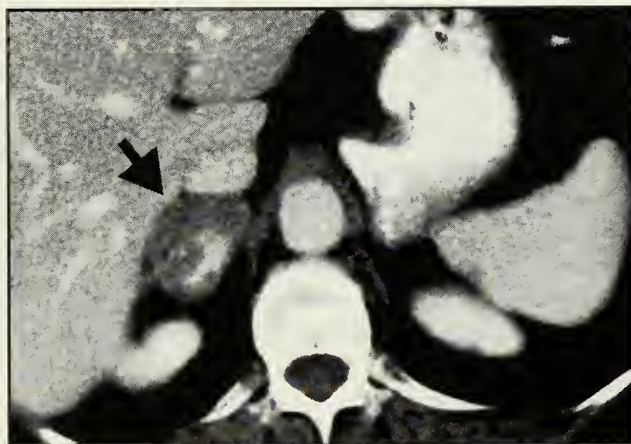


Figure 1: CT of the abdomen with contrast.

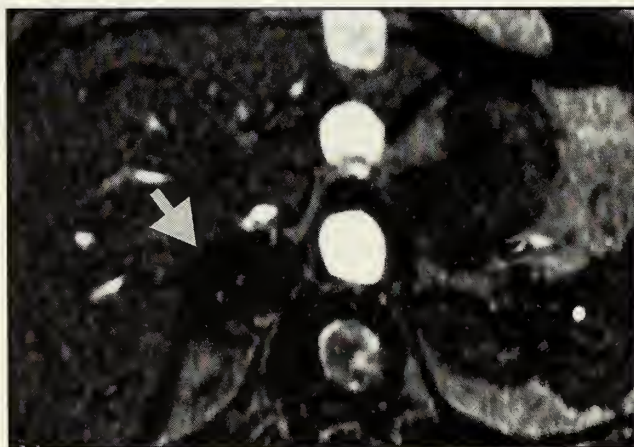
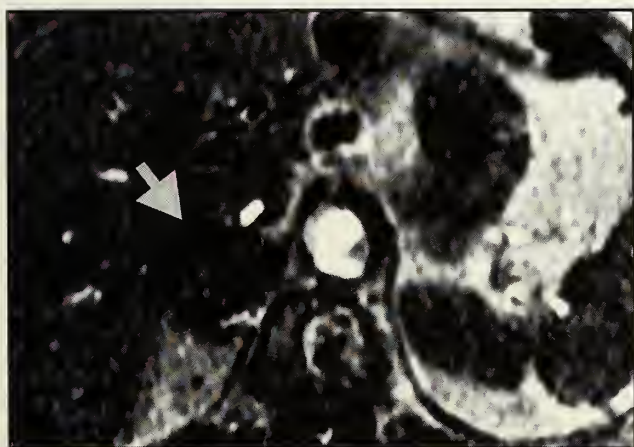


Figure 2: In (left photo) and out (right photo) of phase breath held gradient echo MR images of the adrenal gland.

Adrenal adenoma

Diagnosis: Adrenal adenoma

Findings:

The CT scan reveals a heterogeneous 4 cm right adrenal mass with density measurements of 51-151 Hounsfield units. The MR images reveal significant loss of signal within the adrenal gland on the out of phase image relative to the in phase image.

Discussion:

Differentiation of adrenal adenomas from metastases is a common problem. Adrenal adenomas are benign lesions found in 3-8% of autopsy specimens. The adrenal gland is a common site of metastases from many tumors, but only 50% of adrenal masses are metastatic in a patient with a known primary, due to the high prevalence of adenomas.

Adrenal masses are often discovered incidentally (0.35 to 5%) on CT scans of the abdomen. Morphologic analysis rarely differentiates malignant from benign adrenal masses (most of which are cortical adenomas). Until recently, most patients without an extra adrenal primary had expensive serial six-month follow-up studies to document stability. Oncology patients often underwent percutaneous biopsy.

Recent studies have shown that unenhanced CT densitometry can characterize many adrenal masses, due to the high content of lipid in most adenomas. An adrenal mass with an attenuation value of less than 10 HU on unenhanced CT may be presumed to be benign with a specificity of 96% and a sensitivity of 76%. At a value of 0 HU the specificity is 100% but sensitivity is only 46%. Practically most abdominal CT scans are preformed with contrast, which obviates the attenuation differences of adenomas and metastases.

MR also reliably distinguishes adenomas and metastases on the basis of lipid content. Fat and water precess at different frequencies in a magnetic field and their signal can be additive or subtractive. In and out of phase images separate these effects. If an adrenal mass loses signal on out of phase images (as in this case) it can be assumed to be an adenoma. Note some adenomas will be lipid poor and mimic metastases. MR allows us to spare a significant subset of patient's biopsy or follow-up. This is a short (less than 10-minute exam) and is usually preformed at a limited charge.

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Author: Steven R. Nokes, M.D., Radiology Consultants in Little Rock.

New Members

BATESVILLE

Collins, John Orvil, Neurology. Medical Education, University of Texas Southwestern Medical School, Dallas, 1993. Internship, Sinai Hospital of Baltimore, Maryland, 1994. Residency, University of Maryland Medical Center, Baltimore, 1997.

DUMAS

Savu, Calin Andi, Anesthesiology/Pain Medicine. Medical Education, Institute of Medicine and Pharmacy, Bucharest, Romania, 1985. Internship, Morristown Memorial Hospital, Morristown, New Jersey, 1993. Residency, A. Einstein College of Medicine, 1996. Board certified.

EL DORADO

Gomez, Henry Luis, Pediatrics. Medical Education, Universidad Del Norte, Barranquilla, Columbia, 1984. Internship, Hospital General de Barranquilla, Colombia, 1983. Residency, Howard University Hospital, D.C., 1993. Board certified.

Marrero, Ralph J., Otorhinolaryngology. Medical Education, Baylor College of Medicine, Houston, Texas, 1991. Internship/Residency, Georgetown University Medical Center, Washington, D.C., 1997. Board pending.

FORT SMITH

Guyer, Janet E., Family Practice. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1994. Internship/Residency, AHEC-Fort Smith, 1995/1997. Board certified.

HOT SPRINGS

Lagaly, William J., Family Practice. Medical Education, Texas College of Osteopathic Medicine, Fort Worth, 1994. Internship/Residency, Texas College of Osteopathic Medicine, Fort Worth, 1995/1997. Board certified.

JONESBORO

Bush, Steven Brian, Diagnostic Radiology. Medical Education, University of Tennessee Center for Health Sciences, 1991. Fellowship/Residency, University of Tennessee Center for Health Sciences, Memphis, 1986/1995. Board certified.

Phillips, John K., Diagnostic Radiology. Medical Education, University of Missouri School of Medicine, Kansas City, 1988. Residency, University of Tennessee Center for Health Sciences, Memphis, 1996. Board certified.

LITTLE ROCK

Graham, Richard J., Physical Medicine and Rehabilitation. Medical Education, UAMS, 1994. Internship/Residency, UAMS, 1994/1997.

Loughman, Lisa Anne, Emergency Medicine. Medical Education, University of Alabama School of

Medicine, Birmingham, 1994. Internship/Residency, UAMS, 1995/1997. Board pending.

Melton, Christopher Don, Emergency Medicine. Medical Education, UAMS, 1993. Internship/Residency, UAMS, 1994/1996. Board certified.

Tsuda, Sue, Internal Medicine. Medical Education, Northwestern University Medical School, Chicago, Illinois, 1984. Internship/Residency, Northwestern University, 1987. Fellowships, Washington University and Barnes Hospital, 1988-1993.

MOUNTAIN HOME

Wren, Mary R., Obstetrics/Gynecology. Medical Education, UAMS, 1990. Residency/Internship, University of Oklahoma College of Medicine, Oklahoma City, 1991/1994. Board certified.

MURFREESBORO

Chuadry, Zafar Ahmad, Internal Medicine. Medical Education, King Edward Medical School, Pakistan, 1991. Internship/Residency, University of Illinois, 1995/1997. Board certified.

NORTH LITTLE ROCK

Milligan, L., Family Practice. Medical Education, UAMS, 1994. Residency, UAMS, 1997. Board certified.

POCAHONTAS

Felt, Gerald C., Urology. Medical Education, University of Nebraska College of Medicine, Omaha, 1967. Internship, Bryan Memorial Hospital, Lincoln, Nebraska, 1968. Residency, Akron City Hospital, Akron, Ohio, 1974. Board certified.

ROGERS

Cook, Timothy Hale, Internal Medicine. Medical Education, University of Tennessee Center of Health Sciences, Memphis, 1977. Internship/Residency, University of Michigan Hospital, 1979/1981. Board certified.

SPRINGDALE

Clouatre, Michael Paul, Obstetrics/Gynecology. Medical Education, Louisiana State University, Shreveport, 1993. Internship/Residency, Louisiana State University, 1994/1997.

VAN BUREN

Archer, Ernest William, Obstetrics/Gynecology. Medical Education, University of Toronto, Canada, 1978. Internship/Residency, University of Manitoba, Winnipeg, Canada, 1979/1982. Board certified.

OUT OF STATE

Hamada, Omar Louis, Family Medicine. Medical Education, University of Tennessee Center for Health Sciences, Memphis, 1992. Internship/Residency, Baptist Health Plex, 1993/1995. Board certified.

Things To Come

February 19-21, 1998

Cardiovascular Health: Coming Together for the 21st Century - A National Conference. Hyatt Regency Embarcadero Hotel, San Francisco, California. Sponsored by the National Heart, Lung, and Blood Institute; the Cardiovascular Disease Outreach, Resources, and Epidemiology Program; the University of California, San Francisco; and the California Cardiovascular Disease Prevention Coalition. For more information, call 415-476-5808.

February 21-23, 1998

13th Annual Mardi Gras Anesthesia Update in New Orleans. Westin Canal Place Hotel, New Orleans, Louisiana. Sponsored by the Department of Anesthesiology & Center for Continuing Education, Tulane University Medical Center. For more information, call 504-588-5466 or 1-800-588-5300.

February 22-27, 1998

Advances in Imaging: 1998. The Inn at Prospector Square, Park City, Utah. Sponsored by the Departments of Radiology at Tulane University Medical Center and Louisiana State University School of Medicine. For more information, call 504-588-5466 or 1-800-588-5300.

March 4-5, 1998

Partnerships in Quality, 5th Annual Arkansas Foundation for Medical Care Health Care Quality Conference. Embassy Suites, Little Rock, Arkansas. For more information, contact Patricia Williams or Cindy Jones at 501-649-8501, ext. 203.

March 20-22, 1998

4th Annual Clinical Update on Management of the HIV-infected Patient - A Practical Approach for the Primary Care Practitioner. Crowne Plaza Hotel, New York, New York. Sponsored by the Center for Bio-Medical Communication, Inc, and the American Foundation of AIDS Research. For more information, call 201-385-8080.

March 26-29, 1998

National Kidney Foundation, Seventh Annual Spring Clinical Nephrology Meetings, Consultative Nephrology Program. Opryland Hotel, Nashville, Tennessee. Sponsored by the National Kidney Foundation. For more information, call 1-800-622-9010.

April 22-26, 1998

Critical Care Medicine 1998 - 12th Annual Review and Update. Crystal Gateway Marriott, Washington, DC. Endorsed by the Society of Critical Care Medicine and announced by the Center for Bio-Medical Communication, Inc. For more information, call 201-385-8080.

April 29 - May 2, 1998

International Conference on Physician Health. Victoria, British Columbia, Canada. Sponsored by the American Medical Association and the Canadian Medical Association. For more information, call 312-464-5073.

June 23, 1998 - July 5, 1998

12-Day Study Cruise on ms Rotterdam VI - Healthcare in the 21st Century. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored by the University at Sea Continuing Education, Inc. For more information, call 1-800-926-3775.

Breathtaking Decisions

Bioethics, managed care, and end-of-life issues

February 27-28, 1998

Little Rock, Arkansas

Presented by The Center for Bioethics and Human Dignity and Christian Medical & Dental Society together with Trinity International University. The Christian Medical & Dental Society is accredited by the Accreditation Council for CME to sponsor continuing medical education for physicians. The Christian Medical & Dental Society designates this continuing medical education activity for 8 credit hours in Category 1 of the Physician's Recognition Award of the AMA. For more information and to register, call Lou at the Cornerstone Clinic at (501) 224-1105.

Arkansas Foundation for Medical Care 1998 Quarterly Video Conferences:

Video conferences, Third Thursday of the month, once a quarter. Time: 12 noon to 1:30 p.m. Dates: February 19, May 21, August 20 and November 19. Location: UAMS education building/AHECs and Rural Hospital Affiliates. For more information, contact Patricia Williams or Cindy Jones at 501-649-8501, ext. 203.

Keeping Up

February 27, 1998

AIDS/HIV - Location: National Park Medical Center, Ozark/Quapaw Room, Hot Springs. Presented by Dr. Mike Sacente. Sponsored by UAMS. For more information, call (501) 620-1420.

March 13, 1998

Neurotreatment in Rheumatoid Arthritis - Location: National Park Medical Center, Ozark/Quapaw Room, Hot Springs. Presented by Dr. Elenor Lipsmeyer. Sponsored by UAMS. For more information, call (501) 620-1420.

May 2-4, 1998

Spring Sleep Seminar 1998 - Arlington Resort Hotel and Spa, Hot Springs. Sponsored by Washington Regional Medical Center, Fayetteville. For more information contact Bill Rivers, RPSGT at (501) 442-1272.

June 5-7, 1998

20th Annual Family Practice Intensive Review - UAMS, Education II Building. Sponsored by UAMS and the Department of Family and Community Medicine. For more information, call (501) 661-7962 or (501) 686-6016.

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.
Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, starting October 1996, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas

Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas
Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
FP Journal Club, 2nd Monday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Locations vary. Dinner meeting.
Tumor Conference, 1st Wednesday & 3rd Friday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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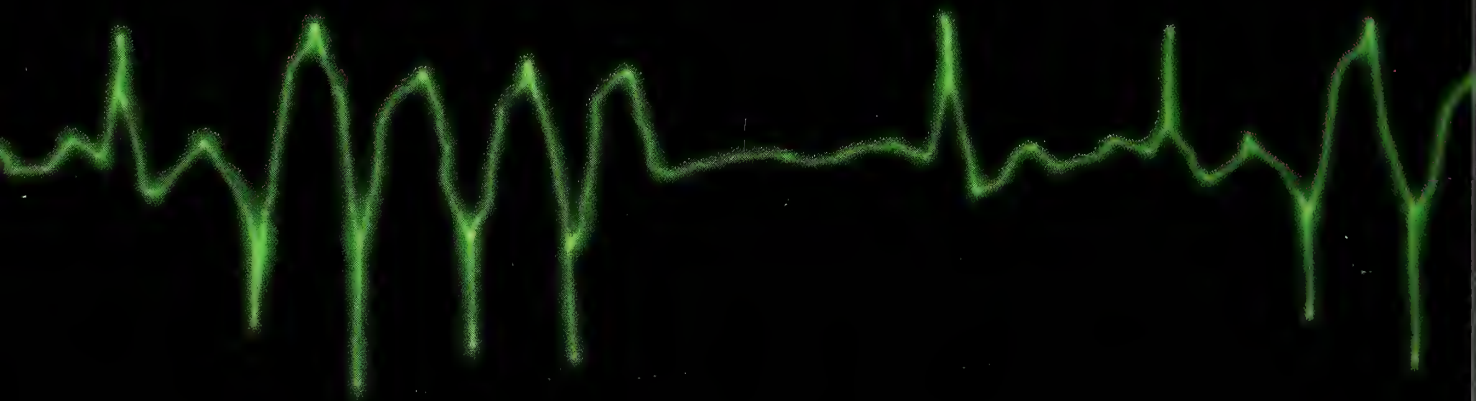
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Volume 94 Number 10

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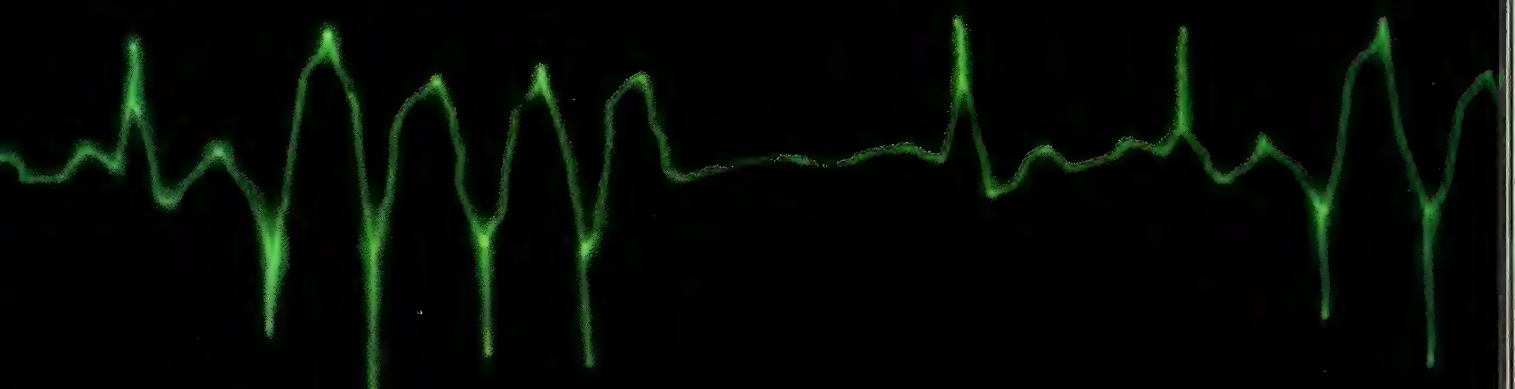
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THE JOURNAL OF THE ARKANSAS MEDICAL SOCIETY

Volume 94 Number 10

March 1998

*Award-Winning Journal of the Arkansas Medical Society
Recipient of the ASAE Excellence in Communications Award*

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Medicare Post Pay Review Audits

EFFECTIVE JANUARY 1, 1997, THE FEDERAL GOVERNMENT WILL STEP UP THEIR EFFORTS TO IDENTIFY CODING VIOLATIONS AND CONSIDER FRAUD AND ABUSE CHARGES AGAINST PHYSICIANS.
IT IS THE DOCTOR'S RESPONSIBILITY TO KNOW — OR LEARN — ACCURACY.

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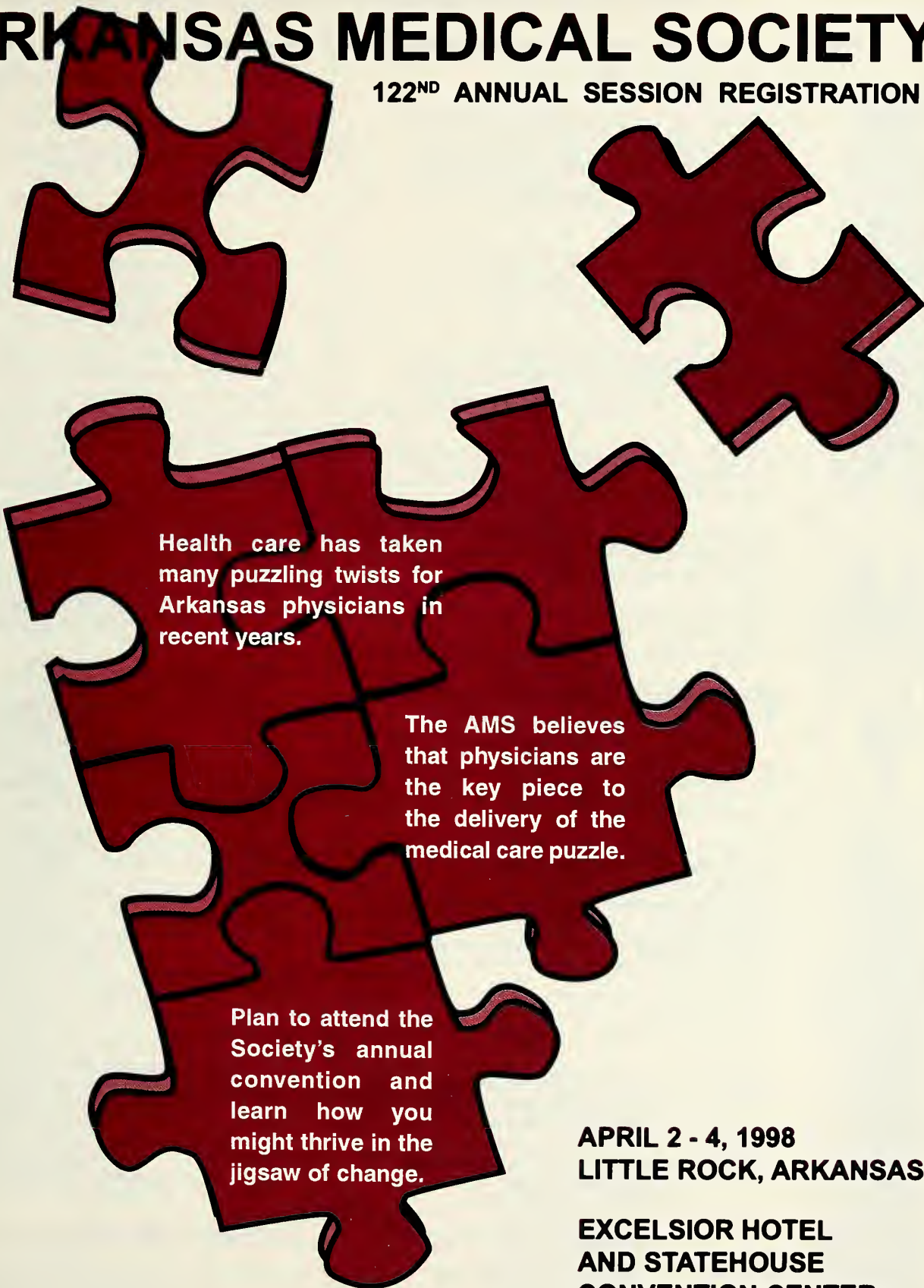
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ARKANSAS MEDICAL SOCIETY

122ND ANNUAL SESSION REGISTRATION



Health care has taken many puzzling twists for Arkansas physicians in recent years.

The AMS believes that physicians are the key piece to the delivery of the medical care puzzle.

Plan to attend the Society's annual convention and learn how you might thrive in the jigsaw of change.

**APRIL 2 - 4, 1998
LITTLE ROCK, ARKANSAS**

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ARKANSAS MEDICAL SOCIETY

TARGET AUDIENCE

This meeting is designed primarily for Arkansas physicians concerned with health care issues that affect the practice of medicine. Clinic managers, medical students, residents and other health care professionals will also benefit from this program.

CONTINUING MEDICAL EDUCATION

Physicians attending the CME programs will be able to:

- *Summarize the actions being taken by the AMA to improve medical care and learn how changes on the national level will affect the practice of medicine.

- *Determine the quality issues and moral dilemmas facing physicians, their patients and patients' families during death and dying.

- *Identify the trigger points being utilized by the United States Attorney's office in conducting fraud and abuse investigations.

- *Explore the use of quality data, performance measurement, and physician report cards as they relate to changes in the health care system.

- *Better document evaluation and management services for Medicare patients.

CME programs held during the annual meeting are being joint-sponsored by St. Joseph's Regional Health Center.

St. Joseph's Regional Health Center is accredited by the Arkansas Medical Society to sponsor continuing education for physicians. St. Joseph's Regional Health Center designates this continuing medical education activity for up to 9.75 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

THURSDAY, APRIL 2, 1998

8:30 a.m. **E & M Guidelines Workshop**
(Pre-registration required - limited seating)
See back page for more information

9:00 a.m. **Harold "Bud" Purdy Memorial Golf Tournament**
Country Club of Arkansas
Maumelle, Arkansas
Sponsored by Schering Corporation

11:30 a.m. **Fifty Year Club Luncheon**

1:00 p.m. **Registration Opens**

1:00 p.m. **Seminar for Young Physicians**
"Medical Practice - 1998 and Beyond"

L. Michael Fleischman
Atlanta, Georgia

L. Michael Fleischman holds a degree in Sociology (health care emphasis) from the University of Missouri-Columbia, with advanced training in epidemiology, community health analysis and health care finance. He has worked as an educational specialist and clinic director for the Centers for Disease Control and Prevention. He has served as project officer for primary care and certificate of need programs for the US Public Health Service.

A principal with Gates, Moore & Company, Mr. Fleischman specializes in alternate delivery systems, practice valuation, managed care negotiations, university and hospital based teaching practices. He serves on the Editorial Advisory Board of *Pediatric Practice Management* and *OB/GYN Practice Management* and is a Certified Healthcare Consultant.

1:00 p.m. **E & M Guidelines Workshop**
(Pre-registration required - limited seating)
See back page for more information

2:00 p.m. **Council Meeting**

3:30 p.m. **Welcome Reception**
Exhibits Open
Sponsored by Nation's Bank

5:00 p.m. **House of Delegates**
Percy Wootton, MD
President
American Medical Association
Richmond, Virginia

Percy Wootton, MD, a private practitioner of internal medicine with a subspecialty in cardiology, became President of the American Medical Association in June 1997. Dr. Wootton has served on the AMA Board of Trustees since 1991. He has been a member of the AMA House of Delegates since 1974.

In addition to his service to the AMA, Dr. Wootton is a Clinical Professor of Medicine at the Medical College of Virginia/Virginia Commonwealth University, a Fellow of the American College of Physicians and a Fellow of the American College of Cardiology. He was a member of the Board of the Commission on Laboratory Accreditation (COLA) from 1992 to 1996.

6:15 p.m. **Medical Student Section Mixer**

7:00 p.m. **Mystery Dinner Theatre**
Co-sponsored by Arkansas Blue Cross Blue Shield and MedPlus Leasing Company

Special Notice: The President's Club will meet on Wednesday, April 1 at 6:30 p.m.

122ND ANNUAL SESSION SCHEDULE

FRIDAY, APRIL 3, 1998

7:30 a.m. **Council Meeting**

8:30 a.m. **Continental Breakfast**

Exhibits Open

Sponsored by First Commercial Bank

9:30 a.m. **Reference Committees**

10:30 a.m. **"Issues in Death and Dying:
A Dramatic Trilogy"**

Julie Russell, RN, MA

Kansas City, Kansas

Julie Russell, RN, MA, identifies herself as a nurse dramatist. Her original dramatic monologues address quality issues from the perspective of the health care consumer and are designed to raise questions and challenge assumptions. She is a visiting professor for the Department of Sociology at the University of Missouri-Kansas City.

Ms. Russell is a consultant to various long term care facilities and corporations. She is involved in extensive inservice education and training, the development of volunteer and intergenerational programs, the development of training curricula and functional assessment instruments for Alzheimer's special care units.

12:00 p.m. **Shuffield Lecture/Luncheon
"A Washington Insider's
Perspective on National Politics"**

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Carlyle Gregory Jr. established The Carlyle Gregory Company after building upon years of first-hand experience in political campaigns. In 1978, he managed Newt Gingrich's first successful bid for Congress. He served as Field Director for the National Republican Congressional Committee from 1991-1995.

Mr. Gregory served as Special Assistant for Political Affairs under President Ronald Reagan. He has participated in the AMA's AMPAC training programs for the past five years and has lectured at American University, George Washington University and Georgetown University. He is a graduate of Washington and Lee University.

1:30 p.m. **Afternoon Break**

Exhibits Open

Co-sponsored by National Park Medical
Center and Pfizer, Inc.

3:00 p.m. **"Avoiding the Pitfalls of Fraud
and Abuse"**

Sandra W. Cherry, JD

Assistant United States Attorney
Little Rock, Arkansas

Sandra W. Cherry, JD, is Coordinator for the Arkansas Federal Health Care Fraud Task Force. Ms. Cherry has been an Assistant US Attorney for the Eastern District of Arkansas since 1983. She was first appointed to the US Attorney's office in 1975. In 1981, she was appointed to the Arkansas Public Service Commission. She returned to the US Attorney's office in 1983.

In 1992, Ms. Cherry received the Arkansas Bar Association's Golden Gavel Award for Exemplary Service to the legal profession. Most recently, she received the Health and Human Services Inspector General's Integrity Award for her contributions to the mission of the Inspector General.

6:00 p.m. **Hospitality Hour**

7:00 p.m. **Inaugural Banquet**

Special guest to be announced
upon confirmation

9:00 p.m. **President's Reception**

SATURDAY, APRIL 4, 1998

7:30 a.m. **Council Meeting**

8:00 a.m. **Early Morning Refreshments**

9:00 a.m. **"Redefining the Future of
Health Care: When Low
Cost is No Longer Enough"**

Alice G. Gosfield, JD

Philadelphia, Pennsylvania

Alice G. Gosfield, JD, has restricted her law practice in Philadelphia, Pennsylvania, to health law and health care regulation since 1973 and places a special emphasis on matters related to physician representation, managed care, non-institutional reimbursement, medical staff issues, fraud and abuse, utilization, and quality issues. She is a graduate of Barnard College and NYU Law School.

She is Chairman of the Board of Directors of the National Committee for Quality Assurance (NCQA), the managed care accrediting organization. She has just finished her second book, "Guide to Key Legal Issues in Managed Care Quality." She is on several periodical editorial boards including *Medical Economics*.

10:30 a.m. **House of Delegates**

Election of Officers

12:30 p.m. **Specialty Meetings
Committee Meetings**



Register Today for the 122nd Annual Session. Don't miss any of the convention highlights!

IMPORTANT INFORMATION

Meeting Registration. . . Return your meeting registration form by March 25, with a check (sorry, no credit cards) made payable to Arkansas Medical Society or AMS:

Arkansas Medical Society
PO Box 55088
Little Rock, AR 72215-5088



Refunds prior to March 25 will be at the full amount. Refunds after March 25 will be charged a \$10 processing fee which will be mailed after the convention.

Need Special Assistance. . . If you are a person with a disability or special needs, please let us know in advance so that we can arrange to make your attendance as convenient and comfortable as possible. Please call the Society office at (501) 224-8967 or 1-800-542-1058 to make arrangements.

Spouses and Guests. . . Spouses and guests are invited to attend the AMS annual convention for a registration fee of \$55 (advance) or \$70 (regular). This allows access to all sessions, exhibit center and social activities.

AMS Alliance Activities. . . The AMS Alliance Annual Session is meeting in conjunction with the Society's annual convention. Please consult the registration form for fee information.

Hotel Reservations. . . Hotel reservations can be made directly with the Excelsior Hotel. Hotel deadline is **March 1.** After that date, AMS convention rates cannot be guaranteed.

\$82 Single/\$92 Double

Excelsior Hotel
Three Statehouse Plaza
Little Rock, Arkansas 72201
(501) 375-5000

Meeting Attire. . . General sessions, educational programs and other daytime activities - *business casual*. Inaugural Banquet and President's Reception - *coat and tie*.

REGISTER TODAY . . . to ensure your spot at the AMS convention. You won't want to miss the feature sessions as well as the social events planned. Be sure to visit the exhibit hall where the vendors showcase their products and services.



SPECIAL NOTICE: PARKING

Because of the Statehouse Convention Center expansion, parking is very limited (including hotel valet parking). Additional parking is available at 2nd and Main. A shuttle to the hotel will run every 15 minutes.

EXHIBIT CENTER INFORMATION

Exhibit Center Hours:

Thursday, April 2

3:30 p.m. to 5:00 p.m.

Friday, April 3

8:30 a.m. to 10:30 a.m.
1:30 p.m. to 3:00 p.m.

Discover the Exhibit Center and Win . . . Special times have been scheduled each day specifically for viewing the exhibits. Daily drawings are held during each time period. The "Grand Prize" drawing is held during the Afternoon Break on Friday. Please take time to thank the exhibitors for their continued support of the Society's meeting.

SPOUSE ACTIVITIES

The River Market . . . Take the Trolley from the Excelsior to the River Market District on Friday, April 3 from 2:30 p.m. to 4:30 p.m.

You can visit:

- The River Market
- River Rock Brewery & Restaurant
- The Museum of Discovery
- The Explore Store (*inside the museum*)
- Central Arkansas Main Library
- Pyramid Art, Books & Custom Framing

AMS ALLIANCE MEETING

THURSDAY, APRIL 2, 1998

2:00 p.m.	Pre-convention Board Meeting/Tea
3:30 p.m.	AMS Welcome Reception
5:00 p.m.	AMS House of Delegates
7:00 p.m.	AMS Mystery Dinner Theatre

FRIDAY, APRIL 3, 1998

7:30 a.m.	Past Presidents' Breakfast
8:00 a.m.	Membership Roundtable Discussion
9:00 a.m.	Opening General Session
11:00 a.m.	Alliance Feature Session
12:00 p.m.	AMS Shuffield Lecture & Luncheon
1:30 p.m.	Update from National
3:00 p.m.	Spouse Optional Activities
6:00 p.m.	AMS Hospitality Hour
7:00 p.m.	AMS Inaugural Banquet
9:00 p.m.	AMS President's Reception

SATURDAY, APRIL 4, 1998

9:00 a.m.	Update from Southern Medical Association
12:00 p.m.	Installation & Awards Luncheon
2:00 p.m.	Post-convention Board Meeting

1998 ANNUAL SESSION REGISTRATION FORM

PHYSICIAN (Please Print) _____

STUDENT _____

SPOUSE _____

GUEST _____

ADDRESS _____

CITY/STATE/ZIP _____

PHONE _____ FAX _____

_____ This is my first AMS convention.

MEAL FUNCTION RESERVATIONS

Reservations are required for the meal functions.
Please indicate the number of tickets desired.

Number attending

Mystery Dinner Theatre _____

Shuffield Luncheon _____

Inaugural Banquet _____

REGISTER TODAY . . . Enter the amount on the appropriate line(s) and total at the bottom.

Members ----- \$ _____

Past President ----- \$ _____

Spouse or Guest ----- \$ _____

Resident or Spouse ----- \$ _____

Medical Student or Spouse ----- \$ _____

Non-Member ----- \$ _____

OPTIONAL EVENTS

E & M Guidelines Workshop ----- \$ _____

(Morning)

E & M Guidelines Workshop ----- \$ _____

(Afternoon)

Seminar for Young Physicians ---- \$ _____

Golf Tournament ----- \$ _____

Alliance Registration ----- \$ _____

TOTAL ENCLOSED: \$ _____

REGISTRATION FEES

	ADVANCED By March 25	REGULAR After March 25
Members	\$ 90	\$125
Past President	\$ 70	\$105
Spouse or Guest	\$ 55	\$ 70
Resident or Spouse	\$ 5	\$ 10
Medical Student or Spouse	\$ 5	\$ 10
Non-Member	\$110	\$145

This fee includes entrance into the Exhibit Center and Exhibit Center Breaks, CME Hours, Shuffield Luncheon, Mystery Dinner Theatre, Inaugural Banquet and President's Reception.

OPTIONAL EVENTS

	ADVANCED By March 25	REGULAR After March 25
--	-------------------------	---------------------------

E & M GUIDELINES WORKSHOP

Members	\$119	-----
Non-Member	\$149	-----

This fee includes workshop materials and CME Hours. Space is very limited. This workshop is expected to sell out. On-site registration is not available.

SEMINAR FOR YOUNG PHYSICIANS

Members	\$ 10	\$ 15
Non-Member	\$ 20	\$ 25

This fee includes workshop materials and CME Hours and entrance into the Exhibit Center on Thursday afternoon.

GOLF TOURNAMENT

Per Person \$ 60 Handicap: _____

ALLIANCE ANNUAL MEETING

*AMSA Member \$ 25 \$ 30

**This fee covers the AMSA meeting and Installation Luncheon only. It does not include AMS activities.*

Please mail the registration form with your check to:

Arkansas Medical Society • PO Box 55088 • Little Rock, AR 72215-5088
Any questions, call 501-224-8967 or 1-800-542-1058

Arkansas Medical Society
Presents
**EVALUATION AND
MANAGEMENT GUIDELINES**

Joint-sponsored by St. Joseph's Regional Health Center

3-Hour Workshop For Physicians and Office Managers

Excelsior Hotel - Little Rock, Arkansas
Thursday, April 2, 1998

Morning Seminar 8:30 a.m. - 11:30 a.m.

Afternoon Seminar 1:00 p.m. - 4:00 p.m.



See Registration
Form for
Workshop Fee.

Beginning July 1, 1998, Medicare will begin enforcing the new documentation guidelines when conducting audits of Evaluation and Management Services. These replace the HCFA guidelines initially published in January 1995. Conomikes Associates has developed a special 3-hour workshop to make the guidelines easier to understand and help you work through the auditing process using case studies.

COURSE OUTLINE

- Medicare auditors will use these new guidelines to compare your chart documentation with the respective level of Evaluation and Management (E & M) codes you have submitted.
- Be better informed – in 3 hours we will make the new guidelines easier for you to understand and help you work through the auditing process, using case studies.
- Make your practice audit-proof! You will leave our workshop with Conomikes' specially designed auditing tool and you will know how to use it to your benefit.

CHANGES THAT WE WILL COVER

- Explanation for documenting the history that are more specific
- The elements of 10 organ-specific physical examinations are defined more fully
- The format of the general, multi-system examination is changed
- The parameters for the "expanded problem-focused" and "detailed" general, multi-system examinations are differentiated
- Work through case studies taken from actual patient charts to determine the intensity of the history, physical examination, and medical decision making
- Learn how to determine the level of E & M service using Conomikes' auditing tools
- The more you use Conomikes' auditing tools, the more proficient you will become and the more equipped to do an internal audit at your practice
- We recommend periodic self-auditing of charts to assure compliance with Medicare requirements. Be prepared, you'll have the knowledge and expertise once you have attended this course.

WHO SHOULD ATTEND?

- Physicians: This workshop will help you to better document services for your Medicare patients. Learn how to have fully compliant records in the most efficient ways possible.
- Office Managers: Learn how to use Conomikes' auditing tools to monitor your E & M coding for compliance with Medicare guidelines.

CME HOURS

St. Joseph's Regional Health Center is accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. St. Joseph's Regional Health Center designates this continuing medical education activity for up to 3.0 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

Medicine in the News

Health Care Access Foundation

As of February 1, 1998, the Arkansas Health Care Access Foundation has provided free medical service to 13,540 medically indigent persons, received 25,898 applications and enrolled 50,649 persons. This program has 1,906 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Help Smokers Quit

The following information is provided by an Agency for Health Care Policy and Research Press Release dated December 30, 1997.

The Agency for Health Care Policy and Research (AHCPR) recently announced a new Smoking Cessation *Two-Three Initiative* that seeks to enlist the help of all clinicians to get their patients who smoke to quit. The Initiative highlights the AHCPR-sponsored Smoking Cessation Clinical Practice Guideline released last year recommending *Two Questions*: "Do You Smoke?" and "Do You Want To Quit?" be part of every medical assessment by clinicians. This should be followed by an intervention as brief as *Three Minutes* recommending smoking cessation treatments proven to work. Research shows that smokers have the best chance of quitting when their health care providers get involved.

To aid clinicians in the intervention, AHCPR has developed a Smoking Cessation Consumer Tools Kit, complete with four easy-to-read, black and white, reproducible, one-pagers that address particular concerns of smokers, especially those in challenging situations such as First Time Quitters, Multiple Quit Attempts, Pregnancy and Smoking, and Smokers Facing Surgery.

"Because of our unique access to the smoking population, doctors, nurses, dentists, pharmacists and other clinicians are an important part of any solution addressing strategies to help the millions of Americans who want to quit," says Michael C. Fiore, M.D., director of the Center for Tobacco Research and Intervention at the University of Wisconsin Medical School and the chair of the panel that developed the Smoking Cessation Guideline.

"A fitting New Year's resolution for all clinicians would be to take the time needed to counsel every one of our smoking patients. Anything less and we would be failing them," Fiore adds. Clinicians also are encouraged to refer patients to local smoking cessation programs and chapters of the American Cancer Society, the American Lung Association and the American Heart Association.

The Initiative follows on the heels of an AHCPR-funded report released in early December that found smoking cessation efforts to be cost-effective. "While there are no magic bullets that will automatically transform a smoker into an ex-smoker, it is clear that clinicians can help patients achieve this critical health goal," adds John M. Eisenberg, M.D., AHCPR Administrator.

A free copy of the Smoking Cessation Consumer Tools Kit can be obtained through the AHCPR Clearinghouse by calling (800) 358-9295, writing to Smoking Cessation, AHCPR Publications Clearinghouse, P.O. Box 8547, Silver Spring, MD 20907-8547. The materials also can be obtained through the Centers for Disease Control and Prevention's Office on Smoking and Health (OSH) by calling (770) 488-5705 or writing to OSH at Mailstop K-50, 4770 Buford Highway, N.E., Chamblee, GA 30341. You also can access the Smoking Cessation Consumer Tools Kit on AHCPR's Website at <http://www.ahcpr.gov/> and the Office on Smoking and Health (OSH) Website at <http://www.cdc.gov/tobacco>.



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of Public Health & Tropical Medicine.*

New Brochure Provides Women with Treatment Choices for Noncancerous Uterine Conditions

The following information is provided by an Agency for Health Care Policy and Research Press Release dated January 26, 1998.

The Agency for Health Care Policy and Research recently released a new brochure to help women better understand and make decisions about the kinds of treatment they can choose for noncancerous uterine conditions, such as fibroids or endometriosis. These conditions are common and affect 1 in 10 women ages 18 to 50 in the U.S. The brochure, entitled Common Uterine Conditions: Options for Treatment, is designed to supplement a woman's discussion with her clinician about various treatment options including hysterectomy.

Hysterectomy, the surgical removal of the uterus, has been a traditional treatment for these conditions, but many women may not be aware that more options are available to them. In 1995, more than 583,000 hysterectomies were performed in the United States. It is second to Cesarean-section as the operation most frequently performed on women. By age 65, more than 37 percent of all women in the United States will have had a hysterectomy. But hysterectomy is not the only option for treating noncancerous conditions and may not, in many cases, be the best. Some other options include medicine, hormone treatment, a more conservative type of surgery, changes in diet or exercise, or watchful waiting.

"For some women, a hysterectomy can significantly improve their quality of life," said HHS Secretary Donna E. Shalala, "but for others, less invasive procedures may be successful and preferred, especially if the woman would like to become pregnant." The Secretary said that the brochure is a comprehensive resource for women who have been diagnosed with this type of medical condition.

The brochure describes some of the conditions that can create the need for a hysterectomy or other treatment. The most common conditions are uterine fibroids, which are solid masses of muscle that can cause pain and excessive bleeding, and endometriosis, or uterine tissue growing outside the uterus that also can cause extreme pain. Other conditions discussed in the brochure include uterine prolapse, ovarian cysts, excessive bleeding, and chronic pelvic pain.

The pros and cons of available treatments are listed for each condition, as well as a discussion of the various types of hysterectomy. Some newer treatments for fibroids are discussed, such as myomectomy or laser surgery which remove the fibroids but still allow a woman to become pregnant. Treatments for endometriosis include pain medicine, hormone therapies,

and laser surgery which preserves the uterus but may make a woman infertile. Other sections of the brochure include answers to frequently asked questions, a glossary to help women become familiar with technical terms, and questions a woman can ask her doctor.

"It is essential that a woman find out as much as possible about her particular condition and possible treatment before making any decision," said AHCPR Administrator John M. Eisenberg, M.D. "Every woman's situation and concerns are unique, and this brochure is a tool to help women talk to their doctors and make a decision that is right for them." Dr. Eisenberg said the brochure also encourages women to get a second opinion and understand what to expect from any type of surgery.

Common Uterine Conditions: Options for Treatment is available free of charge from the AHCPR Publications Clearinghouse. Call toll-free 1-800/358-9295, or write to the Clearinghouse at P.O. Box 8547, Silver Spring, Md. 20907. The brochure also can be obtained 24 hours a day through AHCPR InstantFAX, 301/594-2800, or through the AHCPR Web page, www.ahcpr.gov.

National Market Trends

The following information is provided by the AMA FED-NET, 1/16/98. Copyright 1998 American Medical Association.

*A federal district court in Wisconsin has ruled that a health plan's decision to deny coverage for the costs of a feeding tube and nutrients for a patient who was unable to swallow was arbitrary and capricious under the Employee Retirement Income Security Act. In *Schneider v. Wisconsin UFCW Unions and Employers Health Plans*, the judge rejected as "bizarre" the plans argument that the tube and nutrients were not covered because the plan included "food outside the hospital" under a provision describing what is not medically necessary. The judge also rejected the plan's argument that the tube was not medically necessary because it was not treating the patient's primary injury to his brain. (*BNA's Health Law Reporter*, January, 1, 1998)

*The Medical Association of Georgia (MAG) has filed suit against Blue Cross & Blue Shield of Georgia, alleging that the reimbursement rates in Blue Cross contracts are based on an arbitrary, secret system, determined unilaterally by Georgia Blue. Before July 1997, the Blues reimbursed based on usual and customary charges. Since July, MAG alleges, the Blues has lowered reimbursement rates in unspecified amounts that can vary from month to month, with no explanation. MAG is asking the Blues to establish more certain reimbursement rates so that physicians are fully informed when deciding whether to participate. (*BNA's Health Law Reporter*, January 1, 1998)

*The National Labor Relations Board (NLRB) has rejected the petition by 400 independent New Jersey physicians to be represented by the United Food and Commercial Workers Local 56 in contract negotiations with Amerihealth HMO. The NLRB concluded that the physicians are not employees of Amerihealth noting that the physicians treat patients from other health plans, Medicare and self-pay patients, and that the physicians - and not the HMO - make the fundamental decisions which determine the profitability of their practices. Local 56 officials plan to appeal the decision. (*Bergen Record*, January 9, 1998)

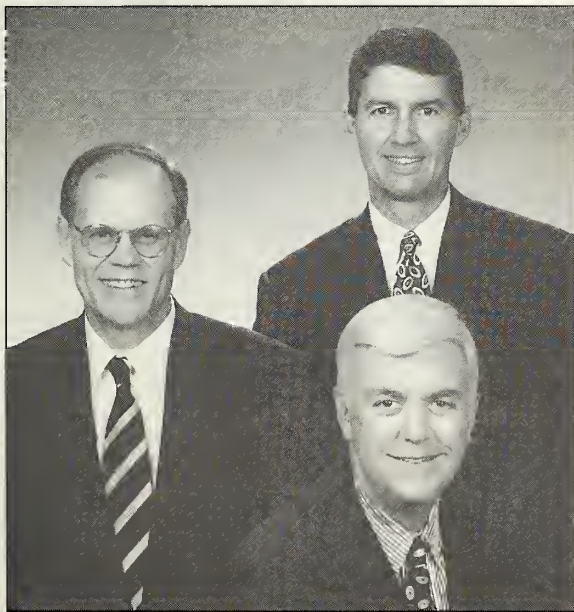
*Another group of 500 independent physicians in northern New Jersey has joined the International Association of Machinists and Aerospace Workers (IAM) and plan to make the same arguments to the NLRB as those set forth by Local 56 - namely, that physicians contracting with HMOs are de facto employees entitled to collectively bargain with those HMOs. (*BNA's Health Law Reporter*, December 16, 1997)

*Physicians employed by Seattle's Medalia Healthcare LLC have filed for representation by the United Salaried Physicians and Dentists, an affiliate of the Service Employees International Union (SEIU). The Medalia physicians represent the largest employed

physician group that sought union representation in 1997. Physician leaders say that they are organizing to protect the physician-patient relationship and to develop a constructive relationship with the administration. (*SEIU Press Release*, January 5, 1998)

*Prudential Insurance Company of America has settled two lawsuits with Texas consumers. The first lawsuit was brought by the state attorney general in response to consumer complaints that Prudential listed physicians who were no longer participating in the HMO and used vague coverage terms to deny payment for emergency care. Under terms of the settlement, Prudential will provide its Texas HMO members with additional information about participating physicians, emergency care benefits, and prescription services. Under the terms of the second settlement, Prudential agreed to pay a \$150,000 fine, to reimburse women denied coverage for birth control pills, and to start covering oral contraceptives for members of employer-sponsored health plans. Texas Department of Insurance regulations dating back to 1978 prevent insurers from excluding oral contraceptives when all other prescription drugs are covered. (*Dallas Morning News*, January 8, 1998)

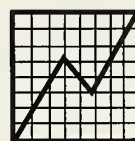
Time For Your Investment Portfolio Fiscal Checkup...Or Maybe a Second Opinion?



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AMS Newsmakers

Dr. Frank Panettiere, an oncologist and hematologist of Rogers, recently retired after studying cancer for more than 30 years.

Dr. William Relyea, a general surgeon of Cherokee Village, recently retired. This is Dr. Relyea's second "retirement" having already done so in 1971 after serving 20 years as a surgeon with the United States Air Force.

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS recipients for the month of December 1997 are Raymond Nathaniel Bowman of El Dorado; Douglas A. Buckley of Paris; James David Busby of Alma; John Carroll Dobbs of Conway; Robert Howard Nunnally of Camden; Donald Harris Pennington of Van Buren; and Parthasarathy Vasudevan of Helena.

1997-98 Scholarships Awarded to Medical Students at the University of Arkansas College of Medicine



Kristy Cowherd, a senior medical student from Crossett, has been awarded the inaugural Dr. H.W. Thomas Scholarship for 1997-98 from the Arkansas Academy of Family Physicians. Pictured left to right: Mrs. H.W. Thomas, Dr. H.W. Thomas, Kristy Cowherd, Dr. Lee Parker and Mrs. Lee Parker.



Eight Freshmen have been awarded Washington County Medical Society Scholarships. Pictured left to right: (back row) Charles Kim, Steven Halter, James Holden, James Manry and Jared Ennis. (front row) Martina Ekechukwu and Phillip McGowen.



D'Andra Bingham, a junior medical student of DeQueen, has been awarded the Dr. A.J. Thompson Memorial Scholarship by the Class of 1968. Pictured left to right: Mrs. A.J. Thompson, Dr. Joetta Galbreath, D'Andra Bingham and Dr. Robert Galbreath.



Lewis Krain of Little Rock, Jeremy Bariola of Lake Village, and Shane Whitlock of Benton, all freshmen, have been named recipients of Southern Medical Association Scholarships. Pictured left to right: Dr. Michael Mackey of Jonesboro, representing the SMA, Shane Whitlock, Jeremy Bariola and Lewis Krain.



Jacob Kaler of Hot Springs, Brain Russell of Bryant, Todd Clements of Harrisburg and Claire Campbell of Little Rock, are recipients of Parents Club Scholarships. Pictured left to right: Jacob Kaler, Brian Russell, Dr. Buford Sufridge, President of the Parents Club, Todd Clements and Claire Campbell.





Jason Farrar and James Wade, both sophomore medical students of Little Rock, have been awarded Pulaski County Medical Society Scholarships. Pictured left to right: James Wade, Fred Reddoch, Executive Director of the Society, and Jason Farrar.



James Swindle of Little Rock is the recipient of the Class of 1945 Alumni Scholarship. Pictured left to right: Dr. Fred Henker and James Swindle.



Jeri Mendelson, a senior medical student from Roland, has been selected as the inaugural recipient of the Arkansas Blood and Cancer Society Scholarship. Pictured left to right: Jeri Mendelson and Dr. I. Dodd Wilson, Dean.



Brad Tilley of Camden and Anthony Williamson of Little Rock, senior medical students have been awarded an Ilse F. Oates Scholarship funded by the contributions of the Arkansas Medical Society Alliance county chapters throughout Arkansas. Pictured left to right: Brad Tilley, Mrs. Cathy Mackey of the Alliance, and Anthony Williamson.



Ten students were selected by the Arkansas Medical Society Alliance to receive the national American Medical Association Education and Research Foundation Scholarship. Pictured left to right: (front row) Jodi Barboza of Little Rock, Alyssa Wenger of Little Rock, Christine Speer of Stuttgart and Charles Hanby of Springdale, (back row) Mrs. Cathy Mackey, representing the AMS Alliance, Brian Bean of Benton, Cody Wright of Hot Springs, Amy Martin of Little Rock, Jennifer Scruggs of Little Rock, Danny Dang of Rogers and Stephen Robert of Hot Springs.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:

AMS - Journal Editor

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If you would like to consult with the attending neonatologist, call toll-free **1-800-ACH-HELP**. **24 hours a day**.



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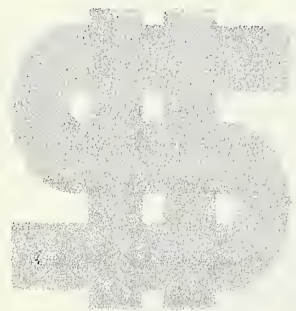
Fifty Year Club Luncheon

The Fifty Year Club is composed of physicians who have held a license to practice medicine for fifty years. The Society will host a luncheon for members of the Fifty Year Club at 11:30 a.m., Thursday, April 2, 1998, at the Excelsior Hotel in Little Rock. Physicians eligible for the Fifty Year Club this year are:

Walter C. Barnes, Jr., M.D., Texarkana, Texas
Frank M. Bauer, Jr., M.D., Little Rock
L. J. Patrick Bell, M.D., Helena
A. Stuart Fitzhugh, M.D., Little Rock
A. Tharp Gillespie, M.D., Little Rock
Joe B. Hall, M.D., Fayetteville
Byron E. Holmes, M.D., Lonoke
Joseph H. McAlister, M.D., Huntsville
Elsey L. Milner, M.D., Little Rock
James M. Post, M.D., Fort Smith
Benedict F. Pupsta, M.D., Clarendon
William V. Relyea, M.D., Cherokee Village
Frank M. Sipes, M.D., Little Rock
Thomas N. Stern, M.D., Memphis, Tennessee

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Lynn Zeno: zeno@arkmed.org
David Wroten: david1@arkmed.org
Kay Waldo: kayw1@arkmed.org

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Special Announcement

for Physicians, Clinic Managers & Healthcare Professionals

Regarding Medical Fraud & Abuse



Representatives from the three most important agencies investigating Medical Fraud and Abuse will come together for a special program to discuss the issues and answer your questions and concerns. This special program, brought to you by the Arkansas Medical Society, is scheduled from 3:00 p.m. to 4:30 p.m., Friday, April 3, 1998, at the Excelsior Hotel and Statehouse Convention Center.

Panelist include:

Sandra Wilson Cherry, Esq.

Assistant U.S. Attorney, Eastern District of Arkansas
and Coordinator, Arkansas Federal Health Care Fraud Task Force

Ivan C. Smith

Special Agent In-Charge, Federal Bureau of Investigation - Arkansas

Linda Little

Regional Inspector General, U.S. Dept. of Health & Human Services

You would never intentionally jeopardize your patients or medical office, *BUT...* you could unintentionally break the law. Never before has your practice been subjected to the current level of federal scrutiny, leading to possible civil *AND* criminal penalties. Learn first-hand, the trigger points that federal investigators are looking for.

Registration Information

This program is part of the AMS 122nd Annual Session. Physicians may register by completing the AMS Annual Session registration form on page 421. Clinic managers and other healthcare professionals may call the AMS at 501-224-8967 for registration information.



1998 House of Delegates

The opening session of the House of Delegates of the Arkansas Medical Society will begin at 5:00 p.m. on Thursday, April 2. Speaker of the House Anna Redman, M.D., will preside. All items of business to be considered by the House must either be printed in the convention issue of *The Journal* or submitted to the headquarters office in writing twenty days prior to the meeting. Any new business proposed during the session of the House of Delegates must have a two-thirds vote of attending delegates for introduction.

Items of business will be referred by the Speaker of the House of Delegates to one of two reference committees. Open hearings on those items of business will be held by the reference committees on Friday, April 3 at 9:30 a.m. All members of the Society are welcome to attend the meetings of the reference committees and to express views on the various reports, resolutions, etc.

The following will be seated at the House of Delegates meeting during the 1998 Annual Session:

Officers

Anna Redman, Pine Bluff, Speaker, (ex-officio)
 Kevin Beavers, Russellville, Vice Speaker,
 (ex-officio)
 Charles Logan, Little Rock, President (ex-officio)
 Steve Thomason, Little Rock, Vice President
 (ex-officio)
 Michael Moody, Salem, President-elect (ex-officio)
 John Crenshaw, Pine Bluff, Immediate Past
 President (ex-officio)
 Lloyd Langston, Pine Bluff, Treasurer (ex-officio)
 Carlton Chambers, Harrison, Secretary (ex-officio)

Councilors

District 1: Joe V. Jones, Blytheville
 Joe Stallings, Jonesboro
 Dwight Williams, Paragould
 District 2: Lloyd Bess, Batesville
 Daniel Davidson, Searcy
 District 3: Parthasarathy Vasudevan, Helena
 Dennis Yelvington, Stuttgart
 District 4: John O. Lytle, Pine Bluff
 Harold Wilson, Monticello
 District 5: William Dedman, Camden
 Fred Murphy, Magnolia
 District 6: Michael Young, Prescott
 Samuel Peebles, Nashville
 District 7: Robert McCrary, Hot Springs
 Brenda Powell, Hot Springs
 District 8: David Barclay, Little Rock
 Joseph Beck, Little Rock
 C. Reid Henry, Jr., Little Rock
 Anthony Johnson, Little Rock
 William Jones, Little Rock
 J. Mayne Parker, Little Rock
 Edward Saer, Little Rock
 Samuel Welch, Little Rock
 John L. Wilson, Little Rock

District 9: Anthony Hui, Fayetteville
 William McGowan, Springdale
 Jan Turley, Rogers
 Oliver Wallace, Green Forest
 District 10: Mike Berumen, Fort Smith
 Gerald Stolz, Russellville
 John Swicegood, Fort Smith
 Paul Wills, Fort Smith

Past Presidents (ex-officio)

A. E. Andrews, Jr., Texarkana
 C. Stanley Applegate, Jr., Springdale
 Glen F. Baker, Little Rock
 John P. Burge, Lake Village
 John Crenshaw, Pine Bluff
 Asa A. Crow, Paragould
 C. Randolph Ellis, Malvern
 Charles R. Henry, Sr., Little Rock
 Morris M. Henry, Fayetteville
 John M. Hestir, DeWitt
 William Jones, Little Rock
 W. Ray Jouett, Little Rock
 Albert S. Koenig, Jr., Fort Smith
 James M. Kolb, Jr., Russellville
 Kemal E. Kutait, Fort Smith
 J. Larry Lawson, Paragould
 Ken Lilly, Fort Smith
 C. C. Long, Fort Smith (Honorary)
 Joseph A. Norton, Little Rock
 Ben N. Saltzman, Mountain Home
 Purcell Smith, Jr., Little Rock
 H. W. Thomas, Dermott
 T. E. Townsend, Pine Bluff
 George Warren, Little Rock
 James R. Weber, Jacksonville
 Charles F. Wilkins, Jr., Russellville
 John P. Wood, Mena
 George F. Wynne, Warren

Ex-officio members shall have the power of voting on all subjects except the election of officers.

Delegates for 1998 as submitted by county:

County	Delegate	Alternate Delegate	Pulaski (cont.)		
Arkansas (1)				Brad Baltz	Laurie Barber
Ashley (1)	Barry Thompson	Don Toon		Reginald Barnes	Joe Buford
Baxter (2)				Karen Burks	Janet Cathey
Benton (4)				Bob Cogburn	Thomas Conley
Boone (2)	Charles Klepper			Michael Cope	Byron Curtner
	Sue Chambers			David Coussens	David Dean
Bradley (1)	Kerry Pennington	Joe Wharton		Philip Deer, III	Gregory Dwyer
Carroll (1)				Shirley DesLauriers	Sidney Eudy
Chicot (1)				Bradley Diner	Jay Flaming
Clark (1)	Noland Hagood	Mark Jansen		Thomas Eans	Eric Fraser
Cleburne (1)				Jim English	David Gilliam
Columbia (1)	Thomas Pullig	Rodney Griffin		Thomas Frazier	Michael Glidden
Conway (1)				Fred Henker	Lawson Glover
Craighead/	Joe Stallings	Dennis Parten		Steve Hodges	James Hagans
Poinsett (7)				James Ingram	James Hagler
Crawford (1)	R. W. Ross			Thomas Jansen	Ed Hankins
Crittenden (2)				Carl Johnson	Thomas Hart
Cross (1)				Gail Jones	T. S. Harris
Dallas (1)	John Delamore	Robert Spears		Stanley Kellar	Tim Hodges
Desha (1)				David King	Jerry Holton
Drew (1)				Marvin Leibovich	Harold Hutson
Faulkner (2)	Randal Bowlin	John Smith		Stephen Magie	Ben Johnson
	Ben Dodge	Phillip Stone		Jane McKinnon	Dianne Johnson
Franklin (1)				Valerie McNee	John Jones
Garland (7)				Rickey Medlock	Joan Kyle
Grant (1)				Tena Murphy	Kenneth Martin
Greene/Clay (1)	Dwight Williams	Roger Cagle		Fred Nagel	John Meadors
Hempstead (1)				George Norton	Keith Mooney
Hot Spring (1)				Carl Raque	James Morse
Howard/Pike (1)				John Redman	James Norton
Independence (2)	J. R. Baker	Jeff Angel		Deanna Ruddell	Michael Roberson
	William Waldrip	Rick Van Grouw		Frank Sipes	Ian Santoro
Jackson (1)	M. A. Chauvin	Roger Green		Kemp Skokos	Claudia Tolleson
Jefferson (5)	Simmie Armstrong			Angy Yeager-Bock	
	Sue Frigon			Suzanne Yee	
	David Jacks			Joseph Ward	
	George Roberson		Randolph (1)		
Johnson (1)			Saline (2)		
Lafayette (1)	Bradley Harbin	Colin Bailey	Sebastian (12)		
Lawrence (1)	Robert Quevillon	Ted Lancaster		Randy Ennen	Allen Beachy
Lee (1)				R. Cole Goodman	Mike Berumen
Little River (1)				Michael Gwartney	Peter Fleck
Logan (1)				David Hunton	David McClanahan
Lonoke (1)				Greg Jones	Steve Nelson
Medical Student (1)				Martin Porter	Claire Price
Miller (3)	John Ford	F. E. Joyce		Jerry Stewart	Stephen Seffense
	Joseph Robbins			John Swicegood	Michael Standefer
Mississippi (1)	Richard Hester	Merrill Osborne		Timothy Waack	Eric Taft
Monroe (1)				John Wells	
Nevada (1)			Sevier (1)		
Ouachita (1)	Jerry Kendall	G. Allen McFarland	St. Francis (1)		
Phillips (1)	Marion McDaniel	L. J. Pat Bell	Tri-County (1)		
Polk (1)	Karen Perry	Thomas Tinnesz	Union (3)		
Pope (3)			Van Buren (1)	Harry Starnes	John Hall
Pulaski (39)	William Ackerman	James Adametz	Washington (8)		
	D. B. Allen	Dana Abraham	White (3)		
	Ray Biondo	Shelly Baldwin	Woodruff (1)		
			Yell (1)	James Maupin	Raymond Hartman

1998 House of Delegates

First Meeting, House of Delegates 5:00 p.m., Thursday, April 2, 1998 Anna Redman, M.D., Speaker

1. Call to order
2. Introduction of guests
3. Adoption of minutes of the 121st Annual Session as published in the June 1997 issue of *The Journal of the Arkansas Medical Society*.
4. Memorials
5. Presentations
6. Old Business
7. New Business
All reports, resolutions, and other items of business received by the headquarters office twenty days prior to the meeting shall be included in the agenda. Any items of business received after March 12th, must have two-thirds consent of attending delegates before introduction. All items will be referred to reference committees.
8. Announcement of two vacancies in the members-at-large positions of the Arkansas State Medical Board and the Second Congressional District of the Arkansas State Board of Health.
9. Address by Percy Wootton, M.D., President, American Medical Association, Richmond, Virginia
10. Recess until Saturday

Final Meeting, House of Delegates 10:30 a.m., Saturday, April 4, 1998 Anna Redman, M.D., Speaker

1. Call to order
2. Election of officers. Nominations as submitted by the Nominating Committee:
President-elect: Lloyd Langston, M.D., Pine Bluff
Vice President: Steven Thomason, M.D., Little Rock
Treasurer: Dwight Williams, M.D., Paragould
Secretary: Carlton Chambers, M.D., Harrison
Speaker of the House: Anna Redman, M.D., Pine Bluff
Vice Speaker of the House: Kevin Beavers, M.D., Russellville
Delegates to the AMA:
John Burge, M.D., Lake Village
(1/1/99 - 12/31/2000)
William Jones, M.D., Little Rock
(1/1/99 - 12/31/2000)
Alternate Delegate to the AMA:
Anna Redman, M.D., Pine Bluff

(1/1/99 - 12/31/2000)

John Hestir, M.D., DeWitt

(1/1/99 - 12/31/2000)

Councilors:

- District 1: Roger Cagle, M.D., Paragould
District 2: Daniel Davidson, M.D., Searcy
District 3: Parthasarathy Vasudevan, M.D., Helena
District 4: Harold Wilson, M.D., Monticello
District 5: Fred Murphy, M.D., Magnolia
District 6: Samuel Peebles, M.D., Nashville
District 7: Robert McCrary, M.D., Hot Springs
District 8: Edward Saer, M.D., Little Rock
John Wilson, M.D., Little Rock
Fred Nagel, M.D., North Little Rock
District 9: William McGowan, M.D., Springdale
Oliver Wallace, M.D., Green Forest
District 10: Gerald Stolz, M.D., Russellville
Position vacant—have not received nominations as of 2/2/98
3. Address by the President of the Arkansas Medical Society, Charles Logan, M.D., Little Rock
 4. Reports of Reference Committees #1 and #2
 5. Report of the Council, Gerald Stolz, M.D., Chairman (Report covers meetings held during the annual session.)
 6. New Business
Announcement of nominees for the Arkansas State Medical Board and Arkansas State Board of Health
Other new business

Vacancies in State Boards

Members-At-Large Positions, Arkansas State Medical Board

Two vacancies will occur December 31, 1998, in the members-at-large positions of the Arkansas State Medical Board. The term of office will be for eight years. Members of the Arkansas Medical Society Nominating Committee are urged to meet immediately following the adjournment of the House of Delegates on Thursday to vote for nominees. Nominations should be reported to the Society personnel immediately following the caucuses. Members serving in these positions are Ray Jouett, M.D., of Springdale who is eligible to succeed himself and Steven Collier, M.D., of Augusta who is eligible to succeed himself. Dr. Jouett is currently serving as chairman of the Arkansas State Medical Board.

Second Congressional District Position, Arkansas State Board of Health

A vacancy will occur December 31, 1998, in the Second Congressional District position of the Arkansas

State Board of Health. The term of office will be for four years. Members from the counties in the new congressional districts are urged to meet immediately following the adjournment of the House of Delegates on Thursday to vote for nominees. Nominations should be reported to the Society personnel immediately following the caucuses.

Kenneth R. Meacham, M.D., of Searcy is currently serving the term which will expire in December 1998. Dr. Meacham is eligible to succeed himself.

The Second Congressional District consist of the following counties: Conway, Faulkner, Perry, Pulaski, Saline, Van Buren, White, and Yell.

Council Meetings

The Council will meet at the following times:

Thursday, April 2, 2:00 p.m.

Friday, April 3, 7:30 a.m.

Saturday, April 4, 7:30 a.m. (tentative)

Nominating Committee

Harold Wilson, M.D., Chairman

The members of the 1997/1998 Nominating Committee are Drs. A. E. Andrews, Daniel Davidson, Anthony Hui, Joe Jones, Marion McDaniel, Timothy Webb, Paul Wills, John Wilson, and Harold Wilson, Chairman.

The Nominating Committee met on Sunday, November 23, 1997. We wish to present to the Society the following nominees:

President-elect: Lloyd Langston, M.D., Pine Bluff

Vice President: Steven Thomason, M.D., Little Rock

Treasurer: Dwight Williams, M.D., Paragould

Secretary: Carlton Chambers, M.D., Harrison

Speaker of the House: Anna Redman, M.D., Pine Bluff

Vice Speaker of the House: Kevin Beavers, M.D., Russellville

Delegates to the AMA:

John Burge, M.D., Lake Village
(1/1/99 - 12/31/2000)

William Jones, M.D., Little Rock
(1/1/99 - 12/31/2000)

Alternate Delegate to the AMA:

Anna Redman, M.D., Pine Bluff
(1/1/99 - 12/31/2000)

John Hestir, M.D., DeWitt
(1/1/99 - 12/31/2000)

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District 4: Harold Wilson, M.D., Monticello

District 5: Fred Murphy, M.D., Magnolia

District 6: Samuel Peebles, M.D., Nashville

District 7: Robert McCrary, M.D., Hot Springs

District 8: Edward Saer, M.D., Little Rock

John Wilson, M.D., Little Rock

Fred Nagel, M.D., North Little Rock

District 9: William McGowan, M.D., Springdale

Oliver Wallace, M.D., Green Forest

District 10: Gerald Stolz, M.D., Russellville

Position vacant—have not received
nominations as of 2/2/98

Escape to the verdant mountains of western Arkansas. Qualified general adult psychiatrist needed for **Medical Director** position to take charge of a 10-bed geropsychiatric unit set in an outdoor paradise. \$250,000 net income potential. If you're a psychiatric professional looking to change your perspective, then look to **Horizon Mental Health Management**. Please forward CV to: HMMH, ATTN: Brenda Moore, 1500 Waters Ridge Drive, Lewisville, TX 75057; Phone: (800) 935-0099; FAX: (972) 420-8233. *Equal Opportunity Employer.*

Arkansas Medical Society **122nd Annual Session**

April 2-4, 1998

Excelsior Hotel in Little Rock

Register Now

Registration form on page 421

1998 Reference Committees

Reference Committees

Reference Committees are appointed by the Speaker of the House of Delegates to consider the various reports and resolutions. Reports published in the April issue of *The Journal*, as well as any reports and resolutions presented at the first meeting of the House on April 2nd, will be referred by the Speaker to the reference committees. The committees will hold open hearings at 9:30 a.m. on Friday, April 3rd. After the opening hearings, the reference committees will hold executive sessions for the purpose of preparing recommendations and reports for the House of Delegates. Reports of the Reference Committees will be acted upon by the House of Delegates at the Saturday session.

Reference Committee Orientation

There will be a meeting of all reference committee members on Friday, April 3rd, at 9:00 a.m. The meeting will be to familiarize the reference committees with the rules, procedures, and writing of the reference committee reports.

Reference Committee Agendas

Reference Committee #1

9:30 a.m., Friday, April 3, 1998

AGENDA

1. AMS Benefits, Inc
Charles Logan, M.D., Chairman of the Board
2. AMS Medical Student Section
Richard A. White, President
3. Arkansas Department of Health
Sandra B. Nichols, M.D., Director
4. Arkansas State Medical Board
Peggy Pryor Cyer, Executive Secretary
5. CME Accreditation Committee
Steven Strobe, M.D., Chair
6. Medical Education Foundation for Arkansas
Martin Eisele, M.D., President
7. Young Physician's Leadership Task Force
Anna Redman, Chairman

Reference Committee #2

9:30 a.m., Friday, April 3, 1998

AGENDA

1. AMS 1997 Budget
Gerald Stolz, M.D., Chairman
2. Annual Session Committee
William D. Dedman, M.D., Chairman
3. Arkansas Health Care Access Foundation, Inc.
Simmie Armstrong, M.D., President
4. Physicians' Health Committee & Arkansas Medical Foundation
Joe L. Martindale, M.D., Medical Director
5. Report of the AMS Executive Vice President
Ken LaMastus, C.A.E., Executive Vice President
6. Pulaski County Medical Society
Fred Reddoch, Executive Director
7. Report of the AMS Council
Gerald Stolz, M.D., Chairman

Business Reports

for Reference Committee #1

AMS Benefits, Inc.

Charles Logan, MD, Chairman of the Board

As your AMS president, I have had the pleasure of serving as Chairman of the Board for AMS Benefits, Inc. This report is submitted to the House of Delegates for information.

AMS Benefits is a for-profit subsidiary, wholly owned by the Arkansas Medical Society. Its offices are located within the AMS office suite. The primary business function of the corporation is to administer and promote AMS sponsored insurance programs, and as such is licensed by the Arkansas Insurance Department. The cornerstone of sponsored products is the AMS Health Benefit Plan, a fully-insured, group health insurance program for clinics.

The group health plan offers both an indemnity plan and a managed care plan that uses the AMCO provider network. Each plan has a variety of deductible and co-insurance options. As of January 1998, seventy clinics (about 50% in the managed care plan) were participating, an increase of 27% over the same period one year ago. This tremendous growth is attributable to the plan's competitive rates and the excellent customer service provided by our AMS Benefits staff. Total premiums for 1997 exceeded \$1.4 million.

AMS Benefits annual revenue of approximately \$100,000 is comprised mainly of administrative fees paid by the insurance company for providing administrative services to the health insurance plan. These services include customer service, billing, and marketing. The corporation pays rent in the AMS office suite, applicable office and other overhead, sponsors events and exhibits at the AMS Annual Session and pays for monthly advertisements in *The Journal of the Arkansas Medical Society*.

I would like to express my gratitude to the other members of the Board for their support and confidence during my year as chairman. Those individuals are as follows: Drs. Michael Moody, John Crenshaw, Lloyd Langston, Mr. Ken LaMastus, Lynn Zeno, and David Wroten.

Special recognition should go to our full-time staff person, Ms. Alanna Scheffer. Ms. Scheffer has developed a loyal following of clinic managers and is primarily responsible for much of the growth in the insurance program. Her reputation for providing the best possible customer service has created a snowball effect of clinics wishing to join the plan. We appreciate her efforts.

AMS Medical Student Section

Richard A. White, President

1997 was a great year for the medical student section for many reasons. Membership was up again this year. We experienced a 24% increase in membership for the period October 1996 through October 1997. In the national medical student section membership we experienced tremendous gains with over two-thirds of the incoming freshmen becoming members. We will receive a check in excess of \$2,000 this spring for our efforts in recruitment to improve involvement in national meetings and to benefit our chapter. We are lucky to have the AMS to keep up with this money for us. We receive periodic statements on the activities of the account from the AMS and will coordinate with them on ways to help budget the money.

The state and national meetings were especially good for us this year because of the number of students that participated and were able to attend. Rick Cole, Jeff Marotte (alternate delegate to the AMS), Joel Milligan (immediate past president), Karen McNiece (delegate to the AMS), Kelly Wilson (secretary/treasurer), David Keller (vice president), and I, Rick White (president) were privileged to make the annual meeting in Hot Springs. Kelli Wilson, David Keller, and I were fortunate enough to attend the AMA Medical Student Section meeting in Chicago in June 1997 while Karen McNiece, Kelli Wilson, and I represented the Arkansas delegation at the AMA Medical Student Section interim meeting in Dallas in December 1997. All of these meetings allowed us to learn more about how the Arkansas Medical Society and the American Medical Association work and how they are able to serve both medical students and practicing physicians. With an increase from 5 to 7 attending the AMS meeting and an increase from 2 to 3 attending each national meeting over the previous year, we look at this as a step forward to greater understanding and participation of medical students in the section.

In the area of projects, James Wise, Joel Milligan, Karen McNiece, Kelli Wilson, David Keller, and I all pitched in and had a fundraiser for the Cystic Fibrosis Foundation by selling coffee for three days at UAMS to fellow students. We raised over \$86 during the three days and later much more was added to that total with donations given by students for a walkathon.

In the area of local meetings, we were privileged to have David Wroten, Kay Waldo, and Laura Harrison

speak to us this past fall about the AMS and its relationship with the AMA. The AMS provided door prizes at the first meeting, which was a big hit. We also got together for a picture for the UAMS Annual, and at a later meeting voted on issues to be discussed at the interim AMA meeting in Dallas. We appreciate the AMS for appropriating funds for student lunches at our bimonthly meetings. Your support is what helps make our chapter successful.

Next year looks to be an exciting year for our medical student section with active and enthusiastic members striving to make our section the best it can be. If anyone would like more information about our chapter, or would like to talk to a group of interested medical students, please e-mail me at rawwhite@life.uams.edu.

Thank you again for your support of the Arkansas Medical Society Medical Student Section.

Arkansas Department of Health Sandra B. Nichols, M.D., Director

I am pleased to provide the Arkansas Medical Society with the following summary highlighting the accomplishments of the Arkansas Department of Health in 1997. It was another exciting year at the Department. We began to see the results of our strategic planning effort. We adopted new Mission and Vision statements. We identified our Critical Success Factors and Key Performance Areas. We set eleven department-wide Goals for FY98 and every work unit set Strategic Objectives in support of them. All the while, we continued our efforts to protect and promote the health of Arkansans, as you will see from the following outstanding activities during 1997.

Personal Health Services

- *Began participation on October 15 in a National HCFA-funded study called the Medicare Case-mix Project to determine the extent of resources used in Medicare home care. As one of eight selected sites, the Home Health program will collect data on patient and environmental characteristics and the duration of home health visits.

- *Installed automated educational units, or kiosks, in Department of Human Services' offices in Magnolia and West Helena to inform WIC patients on breastfeeding, smoking cessation and WIC-related services.

- *Encouraged locally-based responses to increase immunization levels for children under two years of age through the active support of Arkansas First Lady Janet Huckabee, who serves as honorary chair of the state's immunization initiative.

- *Met the immunization goals for 1997 in 90 sites, based on clinic assessments conducted in local health units.

- *Conducted minors' compliance checks in 25 counties through the Office of Tobacco Control and Prevention. Four hundred and forty-one random checks were made of stores that hold tobacco licenses to see if they complied with the law.

- *Shifted the focus of the Disabilities Prevention Program from primary prevention to prevention of secondary disabilities, which focuses on rehabilitation and support services for persons with disabilities.

- *Participated in crisis response to the victims of the March tornado. Social workers and graduate interns were trained in NOVA Community Crisis Response Debriefing and worked with victims in Arkadelphia, College Station and Southwest Little Rock.

- *Developed a series of meal plans to assist pregnant Hispanic women with gestational diabetes to meet their dietary needs. The plans are in Spanish and reflect culturally appropriate food items and combinations. Plans for four calorie levels were divided into three meals and three snacks.

- *Implemented policies to expand the scope of testing for pregnant women in local health units to include HIV. Act 963 of 1997 requires physicians and other health care providers to test every pregnant woman for syphilis, Hepatitis B and HIV as early as possible during the pregnancy.

Environmental Health Services

- *Participated in a process to provide the members of the Arkansas Chemical Stockpile Emergency Preparedness Program (CSEPP) community around the Pine Bluff Arsenal a means of identifying and resolving issues that affect the health and safety of the CSEPP community. As a result of this effort, the community identified the need to provide nerve agent antidotes in auto-injectors and personal protective equipment to first responders. This equipment was purchased and the auto-injectors are being distributed to first responders who have completed a course on their use. The course is required before a first responder can be certified by the Department to administer the antidote kits during an emergency.

- *Hosted two Toxic Chemical Training Courses for Medical Support Personnel in support of the CSEPP program. The courses are designed to provide physicians, physician assistants, nurses and other health care providers in the community with the knowledge needed to recognize the symptoms and provide treatment to people who may be exposed in the event of a release of chemicals from the Pine Bluff Arsenal.

- *Participated in a by-invitation-only workshop at the Federal Emergency Management Agency's National Training Center. The purpose of the workshop was to provide a forum for federal and state agencies responsible for radiological emergencies to identify training

requirements and to recommend changes to existing emergency plans.

- *Conducted training for the West Memphis Fire Department on radiation exposure control methods, use of radiation monitoring equipment, and shipping and handling of radioactive material. The Fire Department responded to an incident last year involving the recovery of a stolen gauge containing radioactive material that emphasized the need for the training.

- *Responded to a major chemical fire and explosion at the BPS Chemical plant in West Helena. Department responses included ensuring the health and safety of the public and that appropriate actions were taken with regard to the reopening of the Helena Regional Medical Center.

- *Initiated a new hearing process with the Board of Health to review and evaluate violations of the federal Safe Drinking Water Act. The process involves the potential assessment of monetary penalties to public drinking water systems that fail to comply with state and federal drinking water regulations. The hearing and potential levy of penalties are undertaken only after repeated attempts fail to obtain compliance by the violating systems.

Technical/Support Services

- *Added three drugs to Schedule IV of the Arkansas Controlled Substance List – Carisoprodol, Butorphanol, and Nalbuphine.

- *Funded two additional investigator positions in the Division of Pharmacy Services and Drug Control to help reduce the backlog of investigations. Legislation passed in 1997 allows the Department to bill professional licensing boards for investigative services.

- *Investigated several instances where students and other young people had secured elemental mercury and played with it, often spilling it on the floor of their homes. Mercury will volatilize and is 80% absorbed by the lungs, resulting in high blood levels and possible kidney and brain damage. In the most recent occurrence, nine homes in Texarkana had to be evacuated and remediated because of high ambient air readings. Nine occupants had high levels of mercury in their blood or urine, necessitating medical attention. The Department has requested that children not play with mercury and that there be tighter security for equipment and laboratories containing mercury.

- *Provided a variety of social work workshops and in-service conferences. Topics included mental health issues as well as team building, abuse/violence recognition/reporting, and student assistance program training.

- *Developed a helpful phrase book for nutrition assessment and counseling for Hispanic clients.

- *Developed and distributed a gestational diabetes nutrition care protocol and educational materials to

nutritionists across the state. These materials are being used by the following hospitals – Baptist Medical Center and Columbia Doctors Hospital in Little Rock; St. Joseph's Regional Health Center and their Medicaid high risk pregnancy clinic, Mercy Clinic, in Hot Springs.

Collaboration/Partnerships

- *Presented a workshop in cooperation with the U.S. Nuclear Regulatory Commission on state personnel response to and investigation of incidents involving radioactive materials. Representatives of the Texas Department of Health also attended the workshop.

- *Sponsored a three-day Radiological Emergency Preparedness Workshop along with Region VI of the Federal Emergency Management Agency (FEMA), Entergy and the Arkansas Office of Emergency Services. Local and state representatives attended the workshop from Arkansas, Texas and Louisiana, as well as representatives from the U.S. Nuclear Regulatory Commission, the U.S. Department of Energy, FEMA, and nuclear power industries from the central U.S.

- *Participated in an interactive policy seminar entitled Catastrophic 1997, which was an emergency response exercise simulating an earthquake in the New Madrid Seismic Zone. There were 350 participants at the meeting with seven states, fifteen federal agencies and four foreign countries involved. The purpose of the seminar was to identify and develop critical issues, options and decisions for building a framework that can be applied to a national strategy for responding and recovering from a New Madrid earthquake.

- *Worked with other state and federal agencies to control waste from Arkansas dairy farms. The Department, along with other agencies, signed a Memorandum of Understanding establishing the responsibility of each agency in the control of dairy waste.

- *Collaborated with the Department of Human Services to implement ConnectCare, a Medicaid Primary Care Physician (PCP) program to enroll Medicaid recipients with a PCP and significantly diminish emergency room visits by this population.

- *Recommended the use of Standards of Care Guidelines for the provision of medical care and treatment to individuals infected with HIV through the HIV Services Planning Council, a community planning body comprised of local physicians, case managers and HIV-infected individuals.

- *Developed with the Department of Human Services a comprehensive plan to reduce unwed birth and teenage pregnancy. A newly created legislative committee consisting of representatives from other health and human service committees and subcommittees will provide oversight for plan implementation. The plan components include abstinence efforts, community

grants, and family planning access.

*Implemented services in conjunction with the Medicaid Family Planning Services Demonstration Waiver in September. Women with family incomes less than 133% of poverty qualify for the services. The project seeks to improve access to family planning services by expanding Medicaid eligibility for family planning benefits and allowing the state to expand outreach, education, and coordination of care services.

*Facilitated a community cooperative effort to assure care for persons in need of health care in Garland County. Public health nurses, hospitals, pharmacists, physicians, nurses, and community volunteers worked to establish the Charitable Christian Medical Clinic that provides health care to the medically underserved.

*Developed in conjunction with the Cooperative Extension Service a Nutrition Education Kitchen to interest women and children in improving their diets.

*Established a Breast Cancer Control Advisory Board as required by 1997 legislation to provide technical expertise and assistance to the Department's Breast Cancer Control program in the development of outreach, education and case detection efforts. The Advisory Board is composed of eight individuals representing the health care profession and women's advocacy groups.

Grants and Funding

*Received \$1.7 million for five local consortia to provide case management and medical follow-up services to indigent HIV-infected clients. This was the first funding awarded by the Health Resources and Services Administration (HRSA) to the Division of AIDS/STD for the provision of state-of-the-art drug therapies, including coverage for protease inhibitors.

*Was awarded a five year surveillance grant in the amount of \$136,000, focusing on "DNA fingerprinting" technology. Information obtained using this technology will improve the Department's assessment, detection and control of TB infections among specific populations.

*Implemented a Diabetes Control Program with \$235,000 in funding from the Centers for Disease Control and Prevention. The program focuses on educating public and professional staff on the detection and control of diabetes.

*Received funding from the Centers for Disease Control and Prevention for a traumatic brain injury (TBI) surveillance program to measure the incidence and prevalence of TBI in the state by linking death certificates, EMS data and hospital discharge data. Intervention programs will be designed to enhance rehabilitation efforts statewide.

*Signed a Cooperative Agreement with the Chemical Demilitarization Office, Department of the Army, which provides funds and personnel for the Depart-

ment to oversee the destruction of chemical warfare agents at the Pine Bluff Arsenal. Reverse assembly and high technology incineration will be used to treat and dispose of the chemical stockpile in compliance with international treaty requirements. As necessary, health studies and exposure investigations will be conducted to ensure that the health of the citizens in the area is protected.

*Entered a Cooperative Agreement with the Environmental Protection Agency that will provide funds for Department personnel to conduct training of school district superintendents to establish indoor air quality programs in schools. This is important since indoor air is often more polluted than outside air, and improper ventilation often results in elevated contaminant levels in the air and, on occasion, mold growth on walls and ceilings.

What's Ahead

1998 offers another opportunity to respond to the changing climate of health care and to reshape and strengthen the public health system. Together, public health and its many partners in government, business, science, medical and volunteer organizations can realize a shared dream of healthy people living in healthy communities.

Selected Statistical Indicators

Personal Health Services	FY97
<i>Maternal and Child Health</i>	
Child Health Patients	37,198
EPSDT Screenings	49,886
Family Planning Patients	75,688
Maternity Patients	16,546
WIC Clients	155,372
<i>Communicable Disease Control</i>	
AIDS Testing and Counseling	71,100
TB Skin Tests	77,082
Immunizations:	
HIB	113,241
Polio	118,623
DPT	145,194
MMR	79,933
Hep B	138,561
<i>Breast and Cervical Cancer Control</i>	
Screening Mammograms	3,768
Screening Pap Smears	3,099
<i>In-Home Services</i>	
Patient Admissions	28,538
Recovering Patient Visits	508,186
Chronic Patient Visits	95,658
Frail Patient Hours	1,605,301
Hospice Patient Days	40,930

Case Management Units	109,041
<i>Substance Abuse Treatment</i>	
Adults Served	14,035
Adolescents Served	918
Regional Alcohol and Drug Detoxification (RADD) Patients	2,157
Services to Protect the Environment and Health of the General Public	FY97
Environmental Complaint Investigations	4,389
Food Service Establishment Inspections	21,771
Laboratory Sample Analyses	453,787
Milk and Dairy Farm Inspections	6,617
Protective Health Codes Licenses Issued	13,784
Public Swimming Pool Inspections	4,875
Radiological Equipment Inspections	425
Septic Tank Permits Issued	9,073
Water and Wastewater Plans Reviewed	3,199

Arkansas State Medical Board

Peggy Pryor Cryer, Executive Secretary

The 1997 Members and officers of the Arkansas State Medical Board are as follows: W. Ray Jouett, M.D., Chairman; Warren M. Douglas, M.D., Vice Chairman; Alonzo D. Williams, Sr., M.D., Secretary; John B. Currie, Sr., Treasurer; J. & Baker, M.D.; John E. Bell, M.D.; Steven Collier, M.D.; Ted J. Feimster; David C. Jacks, M.D.; Trent P. Pierce, M.D.; C.E. Tommey, M.D.; Rhys A. Williams, M.D.; and James E. Zini, D.O.

The Board met quarterly and addressed complaints, hearings and other pertinent business affecting health care in the State of Arkansas.

The 1997 Licensing Statistics are as follows: Medical Doctors and Doctors of Osteopathy Licensed – 471; Medical Doctors and Doctors of Osteopathy (total) – 7769; Medical Doctors and Doctors of Osteopathy (in state) – 4,829; Occupational Therapists Licensed – 145; Occupational Therapists – 711; Occupational Therapist Assistants Licensed – 43; Occupational Therapist Assistants – 133; Physician Trained Assistants – 37; Respiratory Care Therapists Licensed – 127; Respiratory Care Therapists – 1,126.

Summary of the Board's Proceedings for 1997 is as follows: Individual Complaints and Discussions – 161; Suspended License – 15; License placed on Probation – 10; Physicians requested to appear for further discussion – 4; License Revoked – 4; License Surrendered – 2.

Nature of complaints: Quality of care issues – 55; Communication or doctor/patient conflicts – 21; Emergency room treatment – 5; Alcohol/Drugs – 1; Billing discrepancies – 9; Lack of physician response to patient – 17; Failure to release medical records – 9; Overcharging – 7; Sexual Harassment – 1; Actions taken by other State Boards – 0; Over testing – 1; Over prescribing – 2; Practicing/allowed to practice without a license – 0; Ethics – 1; Front office personnel – 8; Advertising – 0; Data Bank Reports – 0; Negligence – 3; Record keeping – 0; Self prescribing – 0; Miscellaneous – 21.

Financial Report

Assets	1997
<u>Current Assets</u>	
Cash	\$ 722,844
Certificates of deposit	1,119,383
Accrued interest receivable	15,142
Total Current Assets	\$1,857,369

Fixed Assets – at cost

Furniture, fixtures & equipment	\$ 136,139
Less: accumulated depreciation	(68,062)
Net Fixed Assets	\$ 68,077
Total Assets	\$1,925,446

Liabilities and Net Assets

<u>Current Liabilities</u>	
Deferred income	\$ 83,560
Accrued unused vacation pay	22,690
Total Current Liabilities	\$106,250
Net Assets, Unrestricted	\$1,819,196
Total Liabilities and Net Assets	\$1,925,446

Regulations Passed by the Board and/or Amended **REGULATION 2(6)**

The treatment of pain with dangerous drugs and controlled substances is a legitimate medical purpose when done in the usual course of medical practice. If the provisions as set out below in this Resolution are met, and if all drug treatment is properly documented, the Board will consider such practices as prescribing in a therapeutic manner, and prescribing and practicing medicine in a manner consistent with public health and welfare.

However, a physician who prescribes controlled substances or dangerous drugs (e.g. regulated drugs which commonly produce habituation) on a long-term basis (more than six (6) months) for a patient with intractable benign (non-malignant) pain will be considered exhibiting gross negligence or ignorant mal-

practice unless he has complied with the following:

a. The physician will maintain a complete medical history and physical examination of the patient, to include an assessment of the pain, physical and psychological function, substance abuse history, assessment of underlying and CO-existing diseases.

b. The physician will develop a treatment plan which would state the objectives by which treatment success can be evaluated, such as pain relief and/or improved physical or psychosocial function, and indicate if any further diagnostic evaluations or other treatments are planned.

c. They physician will obtain informed consent of the patient by discussing the risks and benefits of the use of controlled substances or dangerous drugs with the patient, his guardian or authorized representatives. The informed consent of the patient should be in writing and should be kept in the patient's file.

d. The physician should periodically review the course of schedule drug treatment of the patient and any new information about the etiology of the pain. If the patient has not improved, the physician should assess the appropriateness of continued prescribing of scheduled medications or dangerous drugs, or trial of other modalities.

e. They physician should be willing to refer to the patient as necessary for additional evaluation and treatment in order to achieve treatment objectives. Physicians should give special attention to those intractable pain patients who are at risk for misusing their medications including those living arrangements that pose a risk for medication misuse or diversion.

f. They physician should keep accurate and complete records according to the items listed above, to include the medical history, physical examination, other evaluations and consultations, treatment plan objective, informed consent, treatment, medications given, agreements with the patient and periodic reviews.

g. The physician should be licensed appropriately in Arkansas and have a valid controlled substance registration and comply with the Federal and State regulations for the issuing of controlled substances and prescriptions, more especially the regulations as set forth in 21 Code of Federal Regulations Section 1300, et sequence.

History: Adopted March 13, 1997, Amended December 5, 1997.

REGULATION 2(7)

A licensed physician engaging in sexual contact, sexual relations or romantic relationship with a patient concurrent with the physician-patient relationship; or a licensed physician engaging in the same conduct with a former patient, if the physician uses or exploits trust, knowledge, emotions or influence de-

rived from the previous professional relationship, shows a lack of fidelity of professional duties and immoral conduct, thus exhibiting gross negligence and ignorant malpractice. A patient's consent to, initiation of, or participation in sexual relationship or conduct with a physician does not change the nature of the conduct nor the prohibition.

History: Adopted March 13, 1997.

REGULATION 20

PRACTICE OF MEDICINE BY A NON-RESIDENT

Pursuant to Arkansas State Medical Board. Code Ann. 17-95-401 and 17-95-202, the Arkansas State Medical Board sets forth the following Rule and Regulation concerning the practice of medicine by a non-resident physicians or osteopaths:

Any non-resident physician or osteopath who, while located outside the State of Arkansas, provides diagnostic or treatment services to patients within the State of Arkansas on a regular basis or under a contract with the health care pro a clinic located in this state, or a health care facility, is engaged in the practice of medicine or osteopathy in this state and, therefore must obtain a license to practice medicine in this State. Any nonresident physician or osteopath who, while located outside of the state, consults on an irregular basis with a physician or osteopath who holds a license to practice medicine within the State of Arkansas and who is located in this State, is not required to obtain a license to practice medicine in the State of Arkansas.

History: Adopted March 14, 1997.

Continuing Medical Education (CME)

Accreditation Committee

Steven Strobe, MD, Chair

The CME Accreditation Committee is charged with the responsibility to accredit intrastate sponsors of continuing medical education. The Committee accredits organizations, such as hospitals, not individual activities or programs. The application process is lengthy and requires an on-site survey by one or more members of the Committee and representatives from the AMS staff. Accredited organizations must reapply every two years.

There are eight hospitals in Arkansas who are currently accredited by the AMS. They are: Baptist and St. Vincent in Little Rock, St. Joseph's and National Park in Hot Springs, Washington Regional and Veterans Memorial in Fayetteville, North Arkansas in Harrison, and Baxter County in Mountain Home.

Since the 1997 Annual Session, four hospitals have been surveyed for reaccreditation. Two were granted full accreditation for 2-years, one received full accreditation for 1-year, and one received a 2-year probation-

ary status. Between January and April of 1998, three more hospitals are due for reaccreditation surveys.

The Committee met on May 3 and October 31 during 1997. In addition to making accreditation decisions, the Committee reduced the standard accreditation period from 4 years to 2 years, revised its application, annual report form, and fee structure. Initial application fees were increased from \$1,500 to \$2,000 and reaccreditation fees from \$900 to \$1,500. To account for the shorter accreditation period, an annual fee of \$450 was eliminated.

The Committee sponsored a 1-1/2 day workshop for CME providers in conjunction with our October 31 committee meeting. The workshop was held in Eureka Springs and was attended by approximately 35 individuals representing our accredited sponsors, UAMS/AHEC, and prospective sponsors. In addition, we continued our co-sponsorship of the Southeast CME Symposium along with the state medical societies from Alabama, Louisiana, and Mississippi. David Wroten and Kay Waldo represented us at the meeting. The Louisiana State Medical Association hosted the symposium in New Orleans.

The members of the CME Accreditation Committee deserve special recognition for their commitment to ensuring the availability of CME sponsors in Arkansas. In addition to attending our meetings they are responsible for conducting the on-site surveys. At a minimum this necessitates a full day away from their practices. The other members of the Committee are as follows: Charles Mabry, MD, Pine Bluff; Carlton Chambers, MD, Harrison; Morton Wilson, MD, Fort Smith; Sanford Hutson, MD, Springdale; and Paul Zelnick, MD, Little Rock.

Medical Education Foundation for Arkansas Martin Eisele, M.D., President

The Medical Education Foundation for Arkansas was organized by the Arkansas Medical Society in 1959. It is governed by a board of directors appointed by the Council of the Arkansas Medical Society. I am privileged to serve as president. Other members of the board are Drs. William Bishop, James Kyser, and Gerald Stolz. Serving as ex-officio with voting power are the Arkansas Medical Society president, president-elect, immediate past president, and the Dean of the University of Arkansas College of Medicine.

The Foundation receives funds contributed by the Arkansas Medical Society which amounts to \$5.00 for each full dues paying member per year. By conservative investment and expenditures, the Foundation has grown to a net worth in excess of \$550,000. The Foundation has an independent audit each year and a copy of the audit is provided to the Council. Funds are used each year to promote the art and science of medicine and the betterment of the health of the public by

providing financial support to recognize schools or institutions who provide primary and advanced medical education. The board has established a policy of accumulating funds over a period of time so in the future the foundation will have adequate funds to undertake major projects.

During 1997 the Medical Education Foundation for Arkansas made the following contributions to the University of Arkansas College of Medicine:

- *\$5,000 to the Ben Saltzman Endowed Chair in Rural Family Medicine
- *\$1,600 to the UAMS Distinguished Lecture Series (2 lectures at \$800 each)
- *\$6,747 to purchase computer equipment
- *\$3,309 to the Department of Pharmacology and Toxicology
- *\$2,318 to the Department of Dermatology
- *\$2,000 to the Microanatomy Department
- *\$1,200 to the Ob/gyn Junior Clerkship Program

Young Physicians Leadership Task Force Anna Redman, M.D., Chairman

The Young Physicians Leadership Task Force last met at 8:00 p.m., on Friday, May 2, 1998 in the Mercury Room of the Arlington Hotel in Hot Springs. Those present were Drs. David Murphy, Tim Langford, Nick Paslidis, and Anna Redman, chairman.

The task force discussed attendance and participation at the Young Physicians Seminar entitled, "Getting Started in Medical Practice," held on May 1, at the Arlington Hotel in Hot Springs. The task force felt the material was very useful and appropriate for the target audience, particularly young physicians and residents. It was felt that the quality was quite good and that it was well presented. The task force has decided to try and organize another such seminar at the medical school, and once again target young physicians, particularly residents within 6 to 18 months of opening their practices. We hope to encourage participation from all the residency programs at UAMS, and also try and link up other AHEC sites via satellite. The committee would also like to review copies of evaluations turned in at the seminar in order to better meet the needs of the residents and other participants. Plans are to use the seminars as vehicles to introduce young physicians to the Arkansas Medical Society and to encourage their participation both as residents and new physicians.

The task force discussed suggestions for topics for the next young physicians seminar. One was to sponsor a seminar on personal finances, including how to get out of debt after residency, and making sound financial decisions initially. There was also some discussion about a seminar on contract negotiation, capitation, managed care, and options for physicians unions to function as negotiating entities.

The task force has suggested trying again to organize small, informal, personal meetings with young physicians, in order to inform them of what the Arkansas Medical Society is doing and especially how it affects them. It is hoped that these may include a Society staff person to answer questions and disseminate information.

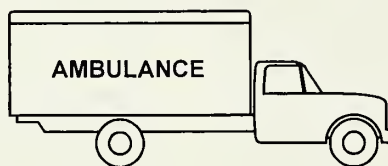
The task force would like to have a copy of the list of young physicians and, if possible, to have a list of nonmember physicians.

The Arkansas Medical Society will send a delegate and an alternate delegate to the AMA's Young Physicians Section Meeting this year to educate more people in the political process on a national level.

The Young Physicians Leadership Task Force would like to formulate a handbook on how the Arkansas Medical Society works, with emphasis on how to get specific items of concern addressed and policy influenced or established. This will, hopefully, be useful to all members, but particularly for the new members.

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and health care providers...

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and
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Membership Directory

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Business Reports

for Reference Committee #2

Arkansas Medical Society 1997 Budget Gerald Stolz, M.D., Chairman

Income	Amount
Dues	\$745,000.00
Journal Advertising	75,000.00
Booth	33,000.00
Annual Session	33,000.00
AMA Reimbursement	12,000.00
Directory & Miscellaneous	15,000.00
Interest Income	52,000.00
Specialty Desk	1,620.00
Continuing Medical Education	3,000.00
Allocation of G.A. Department	5,000.00
Educational Programs	45,000.00
Total	\$1,019,620.00

Expenses:	
Salaries	\$299,379.00
Travel & Convention	60,000.00
President's Account	5,000.00
Taxes	25,900.00
Retirement	35,000.00
Stationery & Printing	20,000.00
Office Supplies & Expenses	28,000.00
Telephone	10,000.00
Rent	79,672.05
Postage	30,000.00
Insurance & Bonds	47,000.00
Auditing	5,000.00
Council & Executive Committee	4,000.00
Journal & Directory Expense	73,000.00
Dues & Subscriptions	7,000.00
Gifts & Contributions	2,500.00
Alliance	8,700.00
Legal Services (retainer)	27,426.00
Committee / District Meeting	7,700.00
Public Relations	3,000.00
Miscellaneous Expenses	5,000.00
Office Equipment & Furniture	7,000.00
Continuing Medical Education	1,500.00
Richmond Early Retirement	5,820.00
Contract Labor	5,000.00
Winter Meeting	3,500.00
Resident & Student Section	6,000.00
Annual Session	66,000.00
Educational Programs	25,000.00
Physicians Health Committee	10,000.00

MEFFA -Dues	12,150.00
Total	\$925,247.05

Governmental Affairs Budget

Income:	
Dues	\$243,000.00
Total	\$243,000.00

Expenses:	
Salaries	\$120,866.00
Retirement	14,200.00
Taxes	9,000.00
Stationery & Printing	5,000.00
Office Sup, Telephone,	6,400.00
Equipment & Furniture	1,500.00
Auto, Travel & Meeting	40,000.00
Legal Retainer	18,300.00
Postage	10,000.00
Insurance & Bonds	7,500.00
Office Allocation To AMS	5,000.00
Audit	1,500.00
Total	\$239,266.00

Annual Session Committee

William D. Dedman, M.D., Chairman

"Scaling New Heights" was the theme for the 1997 AMS annual meeting. Dr. Randolph D. Smoak, Jr., AMA Secretary-Treasurer, gave the keynote address at the opening House of Delegates on Thursday, May 1. Other events on Thursday included a Dr. Harold "Bud" Purdy Memorial Golf Tournament, Fifty Year Club Luncheon and a workshop for young physicians "Getting Started in Medical Practice" was presented by Art Votek of Conomikes Associates.

A variety of excellent speakers and topics during the meeting included a panel discussion by Dr. Michael N. Moody, Dr. Randolph D. Smoak, Jr., and Carole Zylman on physician accreditation in the new managed care environment, "Ethical Issues in Managed Care: A Practical Plan of Action" by Robert Lyman Potter, MD, of the Bioethics Development Group and Z. Lynn Zeno, AMS Director of Governmental Affairs, gave an informative and detailed legislative report from the 81st General Assembly.

Congressman Vic Snyder, MD, elected from Arkansas' Second District to the United States Congress

in November 1996 was the featured speaker at the Shuffield Luncheon on Friday, May 2. Dr. Michael Moody, 1997-98 AMS President-elect, presented the 1997 Shuffield Award to Wayman Ballard for his commitment toward improving the quality of health care for all Arkansans, particularly senior citizens.

Over 60 companies showcased their products and services in the Exhibit Center and several educational grants were received. This revenue is very important to the annual meeting and physicians are encouraged to show their appreciation by visiting the exhibit hall and meeting these representatives.

Charles Logan, MD, of Little Rock, was installed as president of the Arkansas Medical Society during the inaugural banquet on Friday evening. Officers and councilors were elected at the House of Delegates meeting on Saturday. John Crenshaw, MD, President 1996-97 also gave his farewell address at the final House of Delegates.

A very successful annual meeting concluded on Saturday at 12:30 p.m. at which time several specialty meetings were held.

Arkansas Health Care Access Foundation, Inc. Simmie Armstrong, MD, President

"I cannot find an adequate way to express how much I appreciate all the help I've received through your effort. AHCAF has been a real blessing to me... Thank you for all you've done for me and others."

Since 1989, the Arkansas Health Care Access Foundation, Inc. (AHCAF), has received many thanks from those who have benefited from the help of our medical volunteers. Through the combined efforts of many health care professionals, Arkansans who are low income and not insured obtain care that otherwise would have not been available to them.

Arkansas consistently ranks among the ten states with the lowest percentage of health insured adults. Through continuing support and endorsement from the Arkansas Medical Society, AHCAF has been able to provide donated medical care to some of those who fall between the cracks of the health care system.

The premise of the program is relatively simple, and in its simplicity lies its effectiveness. Rather than asking physicians to staff "free clinics" to see the medically indigent in their in their areas, AHCAF volunteers administer the care in the most efficient and effective way...in their own offices with their own staff, with no extra paperwork! Our effectiveness can also be shown in the numbers of those we have certified. Since September 1989, AHCAF has "insured" over 50,000 individuals at an annual cost of approximately \$15.00 per patient.

In addition to physicians who work with our program, our patients are also fortunate to have access to dentists, pharmacies, home health agencies, hospitals,

and podiatrists. Currently, there are over 1,900 volunteers in our program, over 1,000 of them physicians. The program has processed over 9,000 telephone calls within the last year, which include numerous referrals to other service organizations, as well as providing information and referrals directly through the Foundation. We continue our correspondence and coordination with many health care related organizations in order to stay abreast of available services in our state.

We are thankful to all of Arkansas' hospitals for their ever growing support of filling physician requests for in-patient and out-patient services. For many patients, the hospital serves as the only resource for testing. The continued faithfulness of the hospitals is paramount to the physician's treatment of the patients.

The program is very grateful for the help of the caseworkers and staff at the Arkansas Department of Human Services and the Arkansas Department of Health for their continued support in screening Arkansans in their counties. AHCAF could not work without their faithful support year after year.

AHCAF continues its work of coordinating with the Arkansas Department of Health Breast and Cervical Cancer Control Program (BCCCP) in assisting poor, uninsured Arkansas women in obtaining further diagnosis and treatment. At present, more than 250 women screened through the BCCCP have received donated office visits, evaluations, radiology, pathology, anesthesiology, oncology, surgery and hospitalization from AHCAF volunteer professionals. Also as a collaborative effort with the Department of Health, we are planning to provide treatment and follow up for poor women found to be in need of colposcopy and/or cryosurgery. Needless to say, we are thankful to you and your caring staff for providing access to life saving care.

We also continue our long-term relationship with Pfizer, Johnson & Johnson, and SmithKline Beecham Pharmaceuticals. By making their products available at no charge through our program, they help to ensure continuity of care for the patient.

We always explore innovative ways of making care available to those in need. In July, we added a new service to our existing program. The Donated Dental Services (DDS) Program is an initiative formed in several states by the National Foundation of Dentistry for the Handicapped. We are proud that the Foundation was designated to administer the DDS Program in Arkansas. This program targets those with extreme dental need who are unable to receive dental care because they lack sufficient income due to disability or advanced age. There are over 60 dentists and oral surgeons and several dental labs volunteering in the state, and over 30 Arkansans are receiving comprehensive dental treatment at this time.

Recruitment of volunteers remains a priority for the Foundation as our program continues its commit-

ment to serve those Arkansans in need. Our staff of two remains active in promoting the program and educating citizens and health professional organizations about the services available. If you are considering charitable work, please think about donating some medical care through this worthwhile program. It's as easy as calling 1-800-950-8233 or contacting one of the physician board members listed below.

Simmie Armstrong, MD, Pine Bluff, 870-535-6461
Paul Wallick, MD, Monticello, 870-367-6867
Charles Chalfant, MD, Fort Smith, 501-484-7100
L.J. Patrick Bell, Sr., MD, Helena, 870-338-8163
Michael Young, MD, Prescott, 870-887-6551
Rep. Scott Ferguson, MD, W. Memphis, 870-735-5555
Joe Colclasure, MD, Little Rock, 501-227-5050
Leslie Anderson, MD, Lonoke, 501-676-5123
Ray Biondo, MD, Little Rock, 501-835-6512
C.E. Ransom, Jr., MD, Searcy, 501-268-5845

Physicians' Health Committee and Arkansas Medical Foundation Joe L. Martindale, M.D., Medical Director

The Physicians' Health Committee was formed several years ago by the Arkansas Medical Society to intervene and assist physicians with substance abuse problems. The committee is now under the Arkansas Medical Foundation. The Arkansas Medical Foundation has one full-time employee and Dr. Joe Martindale, serves as the part-time medical director. Funding for the Foundation is provided through the increase in licensure fees of all Arkansas physicians and from contributions by the Arkansas Medical Society, State Volunteer Mutual Insurance Company, and private contributions. Currently the Foundation is working to obtain 501 (c) 3 status from the IRS to allow contributions made to the foundation to be tax deductible. The Foundation undergoes auditing each year and a copy is provided to the Arkansas Medical Society and the Arkansas State Medical Board.

Members of the Arkansas Medical Foundation Board of Directors are Larry Lawson, M.D., Paragould, President; Joanna Seibert, M.D., Little Rock, Vice President; Ms. Karen Ballard, Little Rock, Secretary/Treasurer; John Lynch, D.O., Jonesboro; and Glen Baker, M.D., Little Rock. Ex-officio members of the Foundation are Ray Jouett, M.D., Chairman, Arkansas State Medical Board; Ken LaMastus, Executive Vice President of the Arkansas Medical Society who serves as executive director of the Foundation; and Joe Martindale, M.D., medical director.

During 1997, there were 40 physicians and 5 dentists in aftercare contracts with the Physicians' Health Committee. The committee assisted several hospitals in setting up in-hospital Physicians' Health Committees for medical staff who have substance abuse prob-

lems. We have also educated many hospitals, physicians, HMO's, PPO's, and malpractice insurance carriers about our program.

While most referrals are from hospital administrators, spouses, children, concerned colleagues and patients, anyone can report a physician with a substance abuse problem by contacting the Arkansas Medical Foundation office located at 23157 I-30, Suite 201, Bryant, Arkansas 72202 or telephoning 1-501-847-8088. All reports are kept confidential.

Report of the AMS Executive Vice President Ken LaMastus, CAE, Executive Vice President

Next year will mark the end of the Twentieth Century. Remember all those who have visioned the great happening and calamities that would occur by the year 2,000. Medicine has and is seeing its share. Who would have thought a few years ago that a heart transplant would be possible or that insurance companies would be telling doctors how to treat patients. We are seeing many technological marvels. The question is, "Are we, as a society, willing to pay the price?" While the rate of increase in the cost of care has declined, the total cost of care is still a major concern.

Managed care is the biggest concern among physicians. We are seeing some reduction in excesses in the managed care system. This is due, in a large part, to public outcry. Insurance companies and managed care organizations have lost the media war. These organizations are being forced to change some of the onerous provisions because they have been criticized in everything from Ann Landers to *The Wall Street Journal*, the nightly television news, and the corner coffee shop.

Managed care has undoubtedly had an impact on the health care industry and has reduced cost. What we will soon be seeing is an increase in the cost of insurance not due to the rising cost of health care rather than the need to improve insurance companies' profit margins. The attempt by insurance companies and managed care organizations to obtain market share has hurt their profit margins. Such tactics have a day of reckoning and we are now beginning to see increases in the price of insurance unrelated to the actual cost of medical care.

Many physicians are seeing a decline in practice revenue but no decline in operating costs. There are increases in headaches in dealing with managed organizations and administration costs due to increased bureaucracy in treating patients under these new health care financing systems.

Many states have attempted to, and in some cases, changed laws preventing abuses of managed care organizations. Even the Clinton Administration is talking about new patient protection legislation. The protection is from insurance companies excesses in the

requirements under managed care and not protection from those providing medical care. The Arkansas Medical Society's Patient Protection Act which is under litigation was one of our attempts to get rid of some of the abuses placed on patients as well as physicians.

In Congress, the Patient Access to Responsible Care Act (PARCA) of 1997 (HB 1415) which has over 200 sponsors would remove the ERISA exemption enjoyed by self insured groups and insurance companies. This exemption has allowed insurance companies and managed care groups to avoid being sued for issuing bad directives to doctors and hospitals that resulted in harm to people. Many managed care organizations want to dictate patient care but not be responsible for their actions.

The Arkansas Legislature will see tremendous changes after the next election. There will be a minimum of 50% new members in the House of Representatives and some estimates place it as high as 60%. Term limitations, along with campaign finance reform, is having a dramatic affect on who will be elected and how they will finance their campaigns. We can only wonder what impact this will have on the Arkansas Medical Society's activities at the legislature. One thing for sure is local physicians need now, more than ever, to become involved with the campaigns of potential legislators in their districts, to support them and let them know their concerns.

The Arkansas Medical Society is in the best shape financially it has ever been. Membership is at an all-time high. With those good feelings are concerns about the indirect impact of managed care on the Arkansas Medical Society. With the financial impact on physician practices along with buyouts by hospitals and managed care organizations, there is concern of this impact on membership. The Arkansas Medical Society is under pressure to prove more than ever the value of membership.

One of the marvels of the current age is the use of the Internet. It is and should be a source of research for practicing physicians on methods of treatment, as well as, new events in health care. The Arkansas Medical Society, through the leadership of our president Dr. Charles Logan, has made an effort to encourage physicians to use the Internet. The Arkansas Medical Society has sponsored seminars to assist physicians in learning how to use this new marvel. The Arkansas Medical Society has developed a web page with links to other important web sites. A good web page is always "under construction" in new ways to present information.

I would be remiss if I did not thank our staff. We could not exist without our members and especially those who donate their time as officers and committee members in assisting the Society in improving health

care in our state.

Pulaski County Medical Society

Fred Reddoch, Executive Director

The Pulaski County Medical Society had a good year in 1997, thanks to the dedicated leadership of President Edward (Ted) Saer, M.D. Some of the year's highlights included:

- *presentation of two scholarships to UAMS students
- *joint meeting with the Pulaski County Bar Association
- *membership meeting at the Capital Hotel featuring U. S. Senate Candidate Fay Boozman, M.D.

*day-to-day management of the Medical Exchange

Pulaski County Medical Society looks forward to another successful year under the leadership of our current president, Marvin Leibovich, M.D.

Report of the AMS Council

Gerald Stolz, M.D., Chairman

AMS Council:

The Council met on Wednesday, February 5, 1997, at the Little Rock Hilton Inn and the following business was received and transacted:

1. The Council approved the minutes from the November 16-17, 1996 Council meeting.
2. Ray Hanley, Director of the Division of Economic and Medical Services, Arkansas Department of Human Services, gave a report on AR Kids First. The program is being developed for uninsured children in Arkansas. Mr. Hanley explained how the medical care package would provide access to quality preventive and primary health care services regardless of their parents' ability to pay and how the program would affect physicians.
3. Dr. John Slaven reported on the Arkansas Blue Cross Blue Shield's laboratory fee schedule. Blue Cross has recently implemented a new fee schedule that is considerably less than the previous schedule. Upon motion the Council voted for the AMS Executive Committee to meet with Mr. Robert Shoptaw at Blue Cross to discuss issues concerning the laboratory fee schedule. A suggestion was made that Dr. Slaven's presentation be published in *The Journal of the Arkansas Medical Society*.
4. Mike Mitchell gave an update on the Any Willing Provider lawsuit. Judge Moody ruled that the Patient Protection Act is preempted because it affects ERISA plans. Mr. Mitchell recommended the

case be appealed and feels the Eighth Circuit Court would make some corrections. Upon motion the Council voted in favor of moving forward with the appeal process.

5. Dr. Harold Wilson reported on a recent meeting between the Arkansas State Medical Board and the AMS Ad hoc Committee to Evaluate Physician Credentialing. Dr. Wilson explained the credentialing services provided by the Medical Board is voluntary. Dr. Wilson and Peggy Cryer, Executive Secretary of the State Medical Board, answered questions regarding the application process. Dr. Wilson suggested that AMS officers and councilors participate to set an example for other physicians in the state. David Wroten explained that managed care companies will be requiring physicians to participate in the future and it may become mandatory.
6. Dr. John Burge gave a report on the AMA's interim meeting held in December. The AMAP program was discussed as well as a number of other resolutions. Dr. Jones gave an update on the issue of counseling and testing pregnant women for HIV. Dr. Burge also read the resolution voted on at the meeting regarding a study for termination of late term pregnancies to determine clinical practice guidelines.
7. The membership and budget reports were accepted for information.
8. Dr. James M. Kolb, Jr., discussed the President's Club meeting that was held in November. The members of the President's Club asked the Council to consider three items: 1) a program at the annual meeting on medical ethics; 2) an orientation program be developed for new physicians with the Young Physicians Task Force assisting; and 3) to review how county societies and councilor districts are organized. The AMS staff reported a speaker on medical ethics has been obtained. No action was taken on the other issues. Dr. Kolb also reported the President's Club voted against recommending partial dues for semi-retired physicians.
9. Officers and councilors were given a tentative agenda for the annual meeting to be held May 1-3 in Hot Springs.

The Council met Thursday, May 1, 1997 at the Arlington Hotel in Hot Springs and the following business was received and transacted:

1. Dr. Glen Baker provided an update on the Arkansas Medical Foundation. The responsibilities of the foundation are to make certain funding is available for the Physicians' Health Committee and the needs of the Arkansas Medical Society Council's are being met. An office has been established in Bryant with one full-time staff member and Joe Martindale, M.D., serving as medical director.

2. The following appointments were made:

Budget Committee:

Anthony Hui, M.D., Fayetteville (January 1, 1998 to December 31, 2001)

Harold Wilson, M.D., Little Rock (May 3, 1997 to December 31, 2000)

Journal Editorial Board:

Vickie Henderson, M.D., Russellville

Samuel Landrum, M.D., Fort Smith

MEFFA: William Bishop, M.D., Little Rock

Pension Plan Board of Trustees:

John Wilson, M.D., Little Rock

Samuel Welch, M.D. Little Rock

Committee on Position Papers:

John Lytle, M.D., Pine Bluff

James M. Kolb, Jr., M.D., Russellville

Kevin Hale, M.D., Hot Springs

Arkansas Medical Foundation Board of Directors:

These nominees must be approved by the AMF Board of Directors: Larry Lawson, M.D., Paragould, President; Joanna Seibert, M.D., Little Rock, Vice President; Glen Baker, M.D., Little Rock.

3. The Council voted to delay appointments to the Medical Services Review Committee.
4. The Council voted to delay appointments to the Medicare Carrier Advisory Committee.
5. The Council approved the minutes of the February 5, 1997 Council meeting.
6. The Membership and Budget Reports were accepted as information.
7. Dr. William Jones discussed the low participation and lack of contributions to MED-PAC and encouraged everyone to make a contribution.
8. Ken LaMastus discussed the 1996 Arkansas Medical

Society audit and the report was accepted for information.

9. The Council accepted the 1996 MEFFA audit for information. Dr. James M. Kolb, Jr., reported on the MEFFA meeting held during the convention. A motion was made that if sufficient funds were available at the end of the year, the Budget Committee would consider an additional \$10,000 contribution to MEFFA. The Council defeated this motion.
10. An update of the AMS Pension Plan was given by Dr. Anna Redman, Chairman. Due to Boatmen's Trust Company selling their pension plan services, the AMS Pension Plan Board of Trustees approved transferring the funds to First Commercial Trust Company and changing the pension plan to a 401(k). Ken LaMastus reported no changes will be made in employees' contributions. First Commercial Trust Company will serve as trustee.
11. The Council voted to endorse the Federal HIV Prevention Act of 1997. The Council voted that a letter would be mailed to the Arkansas Congressional Delegation encouraging them to cosponsor and support this important public health legislation and another letter be mailed to the presidents of the other 49 state medical societies asking them to take similar action.
12. The Council approved a motion to send a strongly worded letter to Attorney General Winston Bryant encouraging him to participate in any litigation that might curb the use of tobacco products by children and adults, and recoup any taxpayers' dollars that have been, or are being spent, for the care of tobacco related diseases, and that this letter be distributed to the media.
13. Dr. Joe Stallings, Chairman of the Medical Services Review Committee, gave an update on his committee. Council members discussed at length the purpose of this committee and how it no longer functioned as was originally intended. Upon motion the Council voted to abolish the Medical Services Review Committee.

The Council met on Friday, May 2, 1997 at the Arlington Hotel in Hot Springs and the following business was received and transacted:

1. Dr. Charles Logan explained the new Internet project which was presented at the opening session of the House of Delegates. The web page is in the design stages and will be ready in the coming months.

2. Ken LaMastus reported the Position Papers Committee had postponed a position paper on appetite suppressant drugs.
3. Mike Mitchell reported on the sale of the THG Management Group to Vanderbilt University. He reported that under the new ownership the Arkansas Medical Society contract with THG would be honored.
4. Mike Mitchell gave an update on the Patient Protection Act (Any Willing Provider) lawsuit. The lawsuit is on appeal to the Eighth Circuit Court.
1. The Council approved a list of physicians for direct membership status.
6. The Council approved a list of physicians for dues exempt status.
7. The following appointments were made to the Medicare Carrier Advisory Committee:
Anesthesiology: Mark Brown, M.D., Searcy
Cardiovascular Diseases: Anthony Bennett, M.D., Little Rock
Cardiovascular Surgery: James E. Harrell, Jr., M.D., Little Rock
Gastroenterology: Doug Smart, M.D., Little Rock
Neurology: Mary Corbitt, M.D., North Little Rock
Neurosurgery: David L. Knox, M.D., Fayetteville
Ophthalmology: Robert Berry, M.D., Little Rock
Psychiatry: Raymond Remmel, M.D., Little Rock
Plastic Surgery: Kristopher Shewmake, M.D., Little Rock
Pulmonary Diseases: J. Neal Beaton, M.D., Little Rock
Thoracic Surgery: Frederick A. Meadors, M.D., Little Rock
Urology: Barre Finan, M.D., Little Rock
8. Upon motion the Council approved a resolution to authorize the changes in the AMS Pension Plan.
9. David Wroten gave an update on the Medicaid Fee Schedule and the possibility of a change in the fee structure. The Arkansas Medical Society has a meeting scheduled in May with officials from Medicaid.
10. Dr. William Jones expressed appreciation to Lynn Zeno, Dr. Scott Ferguson, and Mike Mitchell for a successful legislative session.
11. Dr. Lloyd Langston expressed concern on the involvement of government in selection of nominees for state boards.

12. Dr. John Wilson reported on the Presidents' Club meeting held on Wednesday evening.

The Council met at on Sunday, September 21, 1997, at the Embassy Suites Hotel in Little Rock and the following business was received and transacted:

1. Dr. Jan Turley discussed the benefits of Medical Savings Accounts. Upon motion the Council approved AMS Benefits to review medical savings accounts and determine if there is a product or service that might be offered to Arkansas Medical Society members.
2. The Council approved the minutes of the May 1-2, 1997 Council meetings.
3. Dr. Gerald Stolz reported on a recent meeting with Dr. James Adamson and Mr. Robert Shoptaw of Arkansas Blue Cross Blue Shield. The Council voted in May to discontinue the Medical Services Review Committee and for the Executive Committee to meet with Arkansas Blue Cross Blue Shield to discuss this and other concerns. Dr. Stolz reported there were no results from this meeting.
4. The Council approved the minutes of the Executive Committee conference calls held on July 24, 1997, August 12, 1997, and August 28, 1997.
5. Mr. Ray Hanley, Director of Medical Services of the Arkansas Department of Human Services, gave updates on Medicaid, ARKids First, and Connect Care. He also discussed the budget restrictions as required by legislation.
6. Dr. Sandra Nichols, Director of the Arkansas Department of Health, explained the Department's strategic plan for results and excellence recently developed to respond to the rapidly changing health care environment. She also discussed the decision to discontinue providing colposcopy and cryosurgery services and to prioritize services such as family planning and immunizations.
7. Dr. Charles Logan presented Mrs. Payton Kolb with a memorial resolution from the American Medical Association. Dr. Kolb served as a delegate to the American Medical Association for a number of years.
8. Mr. David Wroten explained the American Medical Association's interest in conducting AMAP field studies on outcome measurement and quality improvement projects in Arkansas. Upon motion the Council approved signing a non-binding letter

of intent to participate with AMAP and for the Executive Committee to study options including surveying other states and report to the Council before any action is taken.

9. Mrs. Michael Moody, President of the Arkansas Medical Society Alliance, informed the Council of the Alliance's activities including a DWI project and a "Hands Are Not For Hitting" program for children. She thanked the Council for their financial support which has allowed them to hire a part-time secretary.
10. Mr. Mike Mitchell reported a decision is not expected on the Any Willing Provider Lawsuit until early next year.

The Council adjourned to reconvene in executive session. Minutes of executive sessions are available for review by any member at the Society office.

After the executive session adjourned the Council meeting resumed with the following business:

11. Mr. Ken LaMastus discussed the option of refinancing the Arkansas Medical Society building and securing permanent financing. The current financing has a balloon note due in the year 2002. Upon motion the Council gave approval for Ken LaMastus to report negotiations to the Executive Committee and the Executive Committee would authorize negotiations for refinancing. The Council will also receive an update at the November meeting.
12. Upon motion the Council approved a reimbursement policy for travel. The Arkansas Medical Society will provide officers and representatives with this policy to clarify reimbursable expenses.
13. The Council approved the following appointments: Dr. William Dedman, Camden, Fifth District Councilor; Dr. Samuel Peebles, Nashville, Sixth District Councilor; Edward Saer, Little Rock, Eighth District Councilor; and Oliver Wallace, Green Forrest, Ninth District Councilor.
14. The Council reappointed Dr. Thomas Kovalski a rheumatologist from Little Rock to the Medicare Carrier Advisory Committee.
15. Dr. William Jones discussed the proposed tobacco settlement agreement representing an effort of the American Medical Association to discourage underage smoking and achieve substantial reductions in tobacco use.

16. The membership and budget reports were submitted for information.
17. Dr. Charles Logan announced an Internet workshop would be offered in November for physicians and spouses and encouraged councilors to attend.
18. Dr. John Burge gave an update of the American Medical Association annual meeting held in June.
19. Dr. William Jones expressed his concern regarding the recent turmoil of the American Medical Association promoting Sunbeam products. The Council approved the following motion made by Dr. Jones: "The Arkansas Medical Society send a letter to the Board of Trustees of the American Medical Association expressing our outrage concerning this matter. It is our opinion that the image and high esteem of the 150 year-old American Medical Association has been irreparably harmed and that the person or persons responsible for this decision (contract) have lost their creditability and no longer serves the best interest of the American Medical Association and, therefore, should be dismissed (terminated)."

The Council met on Sunday, November 23, 1997, at the Holiday Inn Select in Little Rock and the following business was received and transacted:

1. Candace Keller, M.D., a member of the AMA Political Action Committee Board of Directors, presented Dr. Charles Logan with a 1996 AMPAC Award. Arkansas was one of fourteen states that reached their goal in 1996. As of this date, Arkansas is first in the nation for 1997 surpassing its goal by 21%.
2. The Council approved the minutes of the following meetings: September 21, 1997 Council meeting, October 22, 1997 Executive Committee meeting, and the October 27, 1997 Executive Committee conference call.
3. Dr. William Jones discussed the recent turmoil of the AMA and Sunbeam promotion. Dr. Jones explained this would be a major issue at the upcoming AMA meeting in December. The AMA has announced the formation of a task force to set up standards for corporate relationships.
4. David Wroten explained the Arkansas Blue Cross Blue Shield's new fee schedule recently mailed to Arkansas Medical Society members. Blue Cross will not publish the new fee schedule as they have in the past. The Arkansas Medical Society will send this information to nonmembers with an application for membership.
5. David Wroten announced that Arkansas was one of ten recipients of The Ford Foundation's Innovations in American Government Award for Connect Care. Connect Care saved over \$30 million in the first eighteen months for the Medicaid program. David was invited to represent the Arkansas Medical Society at a banquet in Washington, D.C. recognizing the recipients of this award.
6. The new *Physician's Legal Guide* recently published by the Arkansas Medical Society was presented to the officers and councilors. The legal guide is being offered for purchase to physicians, attorneys, and others who are interested.
7. Lynn Zeno explained the new guidelines for political contributions including: 1) \$100 limit for state legislative offices; 2) \$1,000 limit for constitutional officers per election, and 3) \$200 contribution limit to Med-Pac. Lynn discussed legislative issues and the Patient Access to Responsible Care Act (PARCA), a bill which would remove the ERISA exemption and
8. Mike Mitchell, AMS Legal Counsel, reported on the recent settlement of the sale of the AMS Management Company. After a day of mediation and upon the approval by the AMS Executive Committee a \$180,000 settlement was accepted.
9. Dr. Gerald Stolz informed the Council of two vacancies in the Medicare Carrier Advisory Committee for neurosurgery and cardiovascular surgery. Dr. Stolz will work with Kay Waldo to get these positions filled.
10. The AMA sent a notice to the Arkansas Medical Society regarding revoking the membership of a physician who was placed on probation by the Arkansas State Medical Board. Upon motion the Council approved this discussion to take place in executive session.
11. Ken LaMastus reported on the intent of the Medical Education Foundation for Arkansas (MEFFA) Board to consider a Section 170 Plan to allow an individual to make contributions to MEFFA that would be partially tax deductible. The MEFFA Board will meet following the Council meeting.
12. The membership report was presented for information. David Wroten reported that membership had exceeded 4,000 members for the first time.

13. Dr. Gerald Stolz discussed the issue of laboratory necessity in documenting the reason for the test and including the diagnosis. He explained the Advanced Beneficiary Notice for patients to acknowledge they will pay for the lab test in the event Medicare or Medicaid does not pay.

AMS Executive Committee:

The Executive Committee met by conference calls on July 24, 1997 and again on August 12, 1997 and the following business was received and transacted on July 24, 1997:

Information was provided to the Executive Committee by Ken LaMastus that Mike Mitchell, AMS legal counsel, had received an unauthorized offer from Vanderbilt University to settle the sale of the AMS Management Company. The \$48,000 is not disputed by Vanderbilt University and an additional \$100,000 was offered to settle the dispute. It was decided that this was not an adequate offer and the Executive Committee suggested Mr. Mitchell attempt to get another offer.

The following business was received and transacted on August 12, 1997:

Mr. Mike Mitchell informed the Executive Committee that Vanderbilt University would not make any additional offers in the negotiations to settle the sale of the AMS Management Company. The Executive Committee authorized Mr. Mitchell to continue to negotiate with Vanderbilt University and suggested he make a counter offer of \$300,000 plus the \$48,000 that is not in dispute.

The Executive Committee discussed refinancing the Arkansas Medical Society Building. Interest rates are low and it would be an appropriate time to refinance the building. Currently the building mortgage has a floating interest rate with a balloon payment due in the year 2002. Additional information will be provided on refinancing the building at the Council meeting September 21.

The Executive Committee met by conference call at 2:00 p.m. on Thursday, August 28, 1997 and the following business was received and transacted:

1. Mike Mitchell explained that he had received a telephone call yesterday afternoon from Mr. William Harbison who is representing Vanderbilt University in the dispute over the money that is owed to the Arkansas Medical Society for the sale of the AMS Management Company. Mike indicated Mr. Harbison did not have any other offers.

2. Mike explained there was a stipulation in our contract calling for nonbinding arbitration and explained the process. He explained the urgency in filing for an arbitrator. Whoever files first gets to name three possible arbitrators and this determines the location of the mediation talks. Arbitration must be completed within 60 days. Mike indicated the results of arbitration is not admissible in court under Arkansas law. It is typical for the losing party to pay legal fees and prejudgment interest in the event of a lawsuit. The Executive Committee gave its approval for Mike to notify Vanderbilt University of three possible arbitrators in Little Rock from which they can choose. Mr. Mitchell hopes the decision to bring in a mediator might speed up Vanderbilt's decision to pay the amount disputed.
3. Mike stated that Mr. Harbison indicated the \$172,000 offer had not been authorized and the \$48,800 was undisputed. The Executive Committee gave its approval for Mike to send a notice of payment being due immediately with interest.

Note: Although Dr. Michael Moody did not participate in the conference call he was apprised of this information earlier and agreed to Mike Mitchell's advice as attorney for the Arkansas Medical Society is this dispute.

The Arkansas Medical Society Executive Committee met at 2:30 p.m. on Wednesday, October 22, 1997, at the Arkansas Medical Society office in Little Rock and the following business was received and transacted:

1. A presentation was given by Foundation Benefits, Inc., on a Section 170 Plan, a funding mechanism for 501(c)3 foundations. Through this plan physicians can make contributions and receive partial tax deductions. Funds would be used to buy annuities which could be used as retirement for physicians in the future. A portion of the funds would buy life insurance that would go to the foundation in the event of that person's death. The organization would receive ten percent of the funds. Mr. Mack Koonce of Hot Springs is the local agent for Foundation Benefits, Inc. The Executive Committee did not make any decisions regarding a Section 170 Plan.
2. Dr. Gerald Stolz discussed the new laboratory regulations which require physicians to indicate the diagnosis and justification when ordering laboratory procedures.

3. Lynn Zeno and Mike Mitchell discussed new regulations as a result of the last legislative session for state PACs. A limit of \$100.00 contribution per person was placed on state legislators and \$1,000.00 contribution per person was placed on constitutional officers.
4. Mike Mitchell explained the arbitration scheduled for October 27, 1997 between the Arkansas Medical Society and Vanderbilt University in settling the sale of the AMS Management Company.
5. Ken LaMastus discussed the AMA revoking the membership of a physician who was convicted of a felony. This physician is a member of the Arkansas Medical Society and Mr. LaMastus asked

guidance on handling this matter. The Executive Committee recommended Mr. LaMastus bring suggestions to the next Council meeting on how to handle this situation.

6. The Executive Committee approved a list of AMS members requesting dues exemption status.
7. The Executive Committee approved a list of AMS members requesting direct membership.
8. The Executive Committee decided to have more regular meetings as opposed to conference calls. All agreed this would be beneficial.



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Mrs. J. Garrett Kinley
Stephen Lefler
Robert Lowery
Edward McAdams
David Staggs
William White
Curtis Williams

Woodruff County
Steven Collier

Yell County
Terry Green
Gary Russell

Memorials

Members of the Arkansas Medical Society and Alliance who have died this past year will be remembered during the opening House of Delegates beginning at 5:00 p.m., Thursday, April 2, 1998, at the Excelsior Hotel in Little Rock. Members to be honored are:

Society Members:

Howard Armstrong, M.D., Little Rock
Joseph A. Buchman, M.D., Little Rock
J. Roger Clark, M.D., Little Rock
T. Murray Ferguson, M.D., West Memphis
Ross Fowler, M.D., Harrison
Edward N. McCollum, M.D., Decatur
F. Lamar McMillin, Sr., M.D., Vicksburg, MS
Don Meador, M.D., Charleston
John H. Miller, M.D., Camden
Arthur F. Moore, M.D., Fayetteville
John L. Ruff, M.D., Magnolia
William W. Scott, M.D., Pocahontas
Daniel J. Scroggie, M.D., Harrison
H. Wendell Ward, M.D., Fayetteville
Oba B. White, M.D., Little Rock
Garland D. Wisdom, M.D., Jonesboro
George H. Wright, M.D., Hope





Debasis Das, M.D.*
J. David Talley, M.D.*

Mitral Stenosis in Pregnancy

Mitral stenosis is the most common rheumatic valvular lesion in pregnancy. The majority of patients with moderate to severe mitral stenosis will deteriorate during gestation. We recently cared for a patient with mitral stenosis who was pregnant who eventually succumbed to this disease

Patient Report

History - A 29 year-old previously healthy gravida 2, para 1 female was admitted to the obstetrics service during her 37th week of pregnancy with a two week history of increasing swelling of her legs and jaundice with a working diagnosis of acute fatty liver and pre-eclampsia. Her prior pregnancy was uneventful. There was a past history of rheumatic fever during childhood without sequella.

Physical and Laboratory Examinations - There was gross anasarca and deep jaundice. A left parasternal heave and a diastolic knock was palpated. The S1 was soft, P2 was loud, and a middiastolic rumble with presystolic accentuation was heard at the apex. There was no opening snap. The bilirubin was 27.3 mg/dl, GOT 141 IU/L, GPT 52 IU/L, albumin 2.1 g/dl, LDH 622 IU/L, creatinine 1.7mg/dl, sodium 121 mmol/l, and protime 14.7 seconds. The chest X-ray showed massive cardiomegaly with a straightened left heart border, an enlarged left atrium, prominent pulmonary arterial trunks, and pulmonary edema (Fig. 1). The electrocardiogram demonstrated a sinus rhythm with left atrial abnormality and right ventricular hypertrophy (Fig. 2). A two-dimensional echocardiogram revealed a severely stenotic and calcified mitral valve with a calculated gradient of 18 mm Hg. and a mitral valve area of 0.5 cm² (normal: 4-6 cm²). The right and left atria and right ventricle was grossly dilated. There was moderate mitral, aortic, and tricuspid regurgitation. The left ventricle systolic function was impaired (Fig. 3).

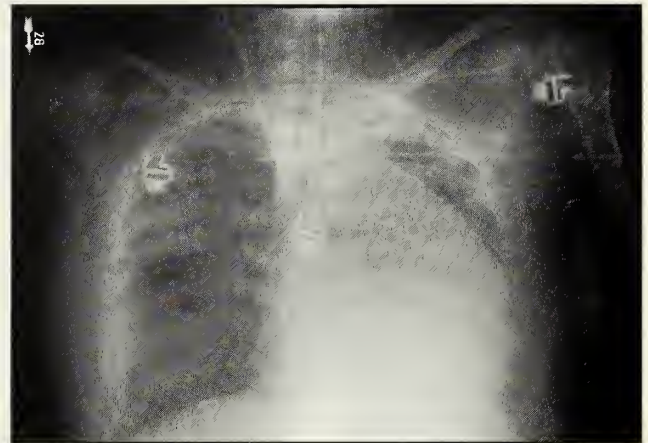


Figure 1: Portable chest x-ray showing an enlarged cardiac silhouette with prominent pulmonary trunks. The left heart border is straightened due to enlarged left atrial appendage. A pulmonary artery catheter is in position.

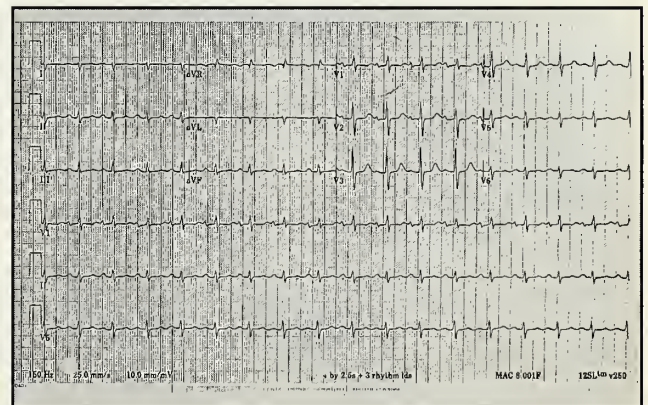


Figure 2: The electrocardiogram showed normal sinus rhythm with right axis deviation, right ventricular hypertrophy and left atrial abnormality.

Hospital Course - The day after admission, labor was induced by artificial rupture of the membranes and oxytocin infusion. In the postpartum period, oliguria, dyspnea, and hypoxia developed and the patient was transferred to the coronary care unit. The central

* Drs. Das and Talley are with the Division of Cardiology, Department of Internal Medicine at UAMS.

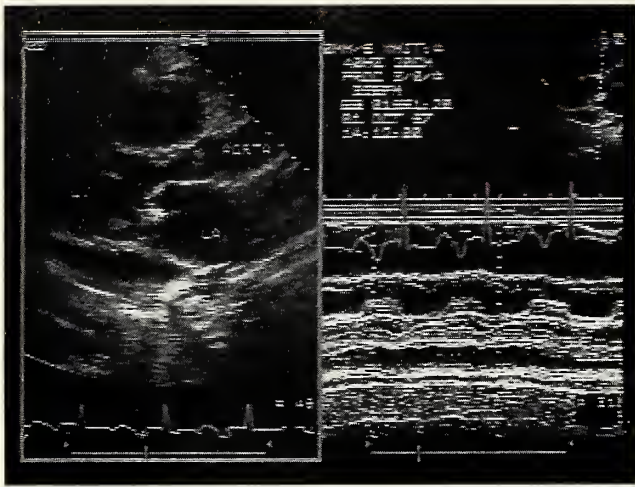


Figure 3: Two-dimensional and M-mode echocardiograms showing the thickened and calcified mitral valve with grossly restricted opening in diastole. The left atrium and right ventricular outflow tract are enlarged. A moderate size pericardial effusion is also seen. Abbreviations: LA = left atrium, LV = left ventricle

venous pressure was (mmHg.) 17 (normal 0-6), pulmonary artery pressure 95/48 (normal 15-25/6-12), and the mean pulmonary capillary wedge pressure 32 (normal 6-12). Oliguria persisted despite the use of intravenous diuretic, low dose dopamine and dobutamine infusion. Continuous venovenous hemofiltration was also ineffective. Despite aggressive inotropic and vasopressor support, the patient developed refractory hypotension and died on the fifth hospital day.

Post-mortem Examination - The heart weighed 525 gms (normal 275 ± 75 gms). The mitral valve was heavily calcified and severely stenosed and the orifice was only a pinhead wide. The chordae tendinae were fused. All cardiac chambers were enlarged. The liver was grossly congested and weighed 2230 gms (normal 1000-1500 gms). There were areas of hepatic cell necrosis.

Discussion

During pregnancy, the hemodynamic problems of mitral stenosis are primarily related to flow obstruction.^{1, 2, 3} The pressure gradient across the narrowed mitral valve may increase greatly secondary to physiological increase in heart rate and blood volume of pregnancy. Additionally, the decrease in serum colloid osmotic pressure during pregnancy and peripartum intravenous fluid administration can both predispose to pulmonary edema. The pregnant female is also liable to sudden shifts in the distribution of blood volume and is, therefore, at increased risk of a sudden decline in left atrial pressure and a precipitous fall in cardiac output.⁴ This may increase maternal and

fetal mortality and may explain the cause of death of females with mitral stenosis who had no previous congestive heart failure. Careful medical therapy with particular emphasis to lower heart rate with digoxin or a betaadrenergic blocking medication allows successful completion of pregnancy in most women. Closed mitral commissurotomy is indicated in resistant cases.⁵ This poses minimal risk of fetal loss as compared to open mitral commissurotomy or mitral valve replacement. The successful use of percutaneous mitral balloon valvuloplasty has been reported during pregnancy but carries a risk of fetal irradiation.^{6,7} It may be done under echocardiographic guidance.⁸

In our patient, symptoms progressed during the early part of the third trimester when fluid retention and blood volume tend to reach a peak. Cardiac output dropped as concomitant hypoalbuminemia resulted in continued accumulation of fluid in the extracellular space. A reduced effective circulating blood volume resulted in poor renal perfusion and diuretic ineffectiveness. Although a palliative mitral valvulotomy was contemplated, the unstable hemodynamics did not provide a window of opportunity to carry out this procedure.

Acknowledgments

The authors appreciate the effort of numerous physicians, Housestaff, and nursing personal who assisted in the care of this patient. Recognition is also given to Julian Javier (Cardiology Attending), and Nancy Patterson, BSN, RDCS (echocardiography).

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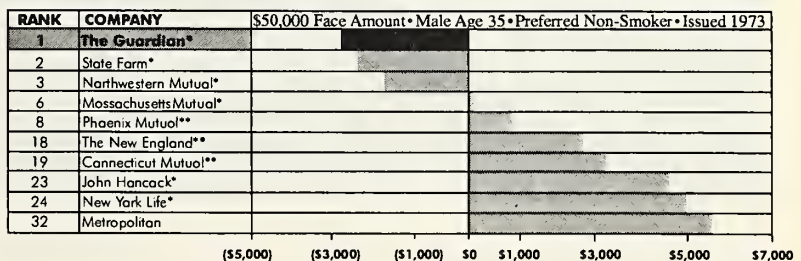
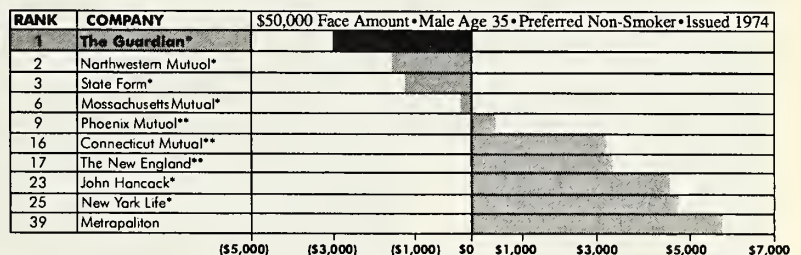
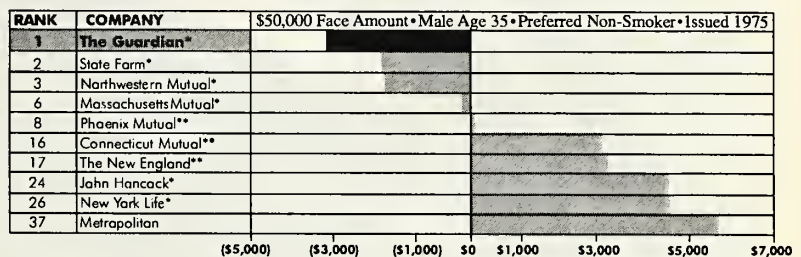
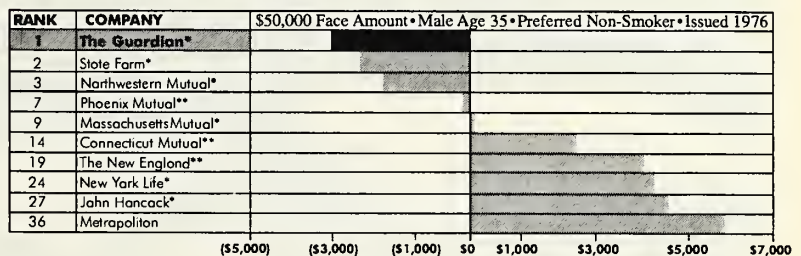
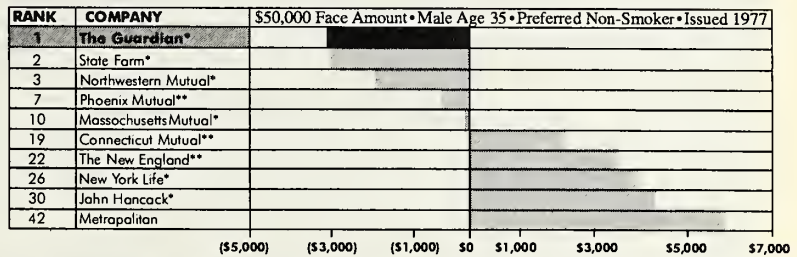
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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Influenza Update

Arkansas - As of mid-February 1998, the Arkansas Department of Health has received positive influenza cultures from Ashley, Baxter, Benton, Cleburne, Columbia, Conway, Craighead, Cross, Dallas, Grant, Howard, Jefferson, Lafayette, Pope, Pulaski, Searcy and Yell Counties. All are type A (subtype unknown). Influenza like illness has been reported in 58 counties so far this season. Influenza activity in Arkansas for the first week of February has been classified as "Regional."

United States - Through January 31, 1998 (week 4), influenza type A has been identified in all 50 states and the District of Columbia. Influenza type B has been identified in 9 states and the District of Columbia.

Activity in states bordering Arkansas for week 4 was reported as "widespread" in Oklahoma, Texas and

Tennessee and "regional" in Louisiana, Mississippi, and Missouri.

From late September through January 1998, the U.S. World Health Organization (WHO) Collaborating Laboratory has tested 41,264 specimens for respiratory viruses, and 4,626 (8%) were positive for influenza. 4,616 (99.8%) of these were type A and the remaining 10 were type B. 948 (99.6%) of the type A isolates that have been subtyped are A(H3N2). The remaining four influenza A isolates were reported as A(H1N1).

For more information in influenza in Arkansas or to report outbreaks, please call the ADH Division of Communicable Disease and Immunization at (501)661-2784 during normal working hours.

Reported Cases of Selected Diseases in Arkansas Profile for December 1997

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

Reportable Diseases	Total Reported Cases YTD 1997*	Total Reported Cases 1996	Total Reported Cases 1995
Campylobacteriosis	174	241	153
Giardiasis	219	182	131
Shigellosis	266	176	176
Salmonellosis	445	455	338
Hepatitis A	219	500	663
Hepatitis B	72	93	83
Hepatitis C	3	7	NR
HIB	0	0	1
Meningococcal Infections	38	35	39
Viral Meningitis	22	38	33
Ehrlichiosis	22	7	14
Lyme Disease	26	27	12
Rocky Mountain Spotted Fever	2	22	31
Tularemia		24	22
Measles	0	0	2
Mumps	1	1	6
Gonorrhea	*****	5050	5437
Syphilis	*****	706	1017
Legionellosis	0	1	8
Pertussis	61	14	59
Tuberculosis	201	225	271

NR Not reportable STD data unavailable

*1997 data are provisional.

In Memoriam

Don Meador, M.D.

Dr. Don Meador of Charleston died Thursday, January 15, 1998. He was 71. He is survived by two daughters, Pat Barker and Charlotte Flanders, both of Fort Smith; four sons, Don Jr. of Charleston, Mark of Fort Smith, Brad of Hackett, Steve of Charleston; Sister, Dorothy Hughes of Memphis, Tennessee; and 14 grandchildren. He was preceded in death by his brother Danny of Memphis, Tennessee.

Oba Bernethel White, M.D.

Dr. Oba Bernethel White of Little Rock died Wednesday, January 7, 1998. He was 96. He is survived by his wife of 30 years, Verna McClinton White; two nephews, Charles William Twine, Ballevue, Wash., Attorney Edgar Hugh Twine, Los Angeles, Calif.; a grand-niece, Deborah Twine Turner; a grand-nephew, Edgar Hugh Twine, II; a great-grandniece, Kayi Turner; a special niece, Andrea Deice Springer Mosely; two adopted sons, Wayne Meritt and Larry "Stumpy" Robertson; and a host of in-laws.

Resolutions

William Grant Cooper, M.D.

WHEREAS, the members of the Pulaski County Medical Society are sincerely saddened to learn of the death of a respected colleague, William Grant Cooper, M.D.; and

WHEREAS, Dr. Cooper was a loyal member of this Society for fifty-one years, serving admirably on numerous Society committees; and

WHEREAS, Dr. Cooper gave freely of his time and energy to many civic and community organizations including service on the UALR Board of Trustees, the faculty of the University of Arkansas College of Medicine, and the Little Rock School Board during the Central High Crisis;

BE IT THEREFORE RESOLVED:

THAT, this resolution be adopted and filed in the permanent files of the Society; and

THAT, a copy of this resolution be mailed to Dr. Cooper's family as an expression of our heartfelt sympathy; and

THAT, a copy of this resolution be made available to *The Journal of the Arkansas Medical Society* for publication.

Oba B. White, M.D.

WHEREAS, the membership of the Pulaski County Medical Society notes with genuine sadness the recent death of an esteemed member, Oba B. White, M.D.; and

WHEREAS, he was a faithful member of this Society for over forty years; and

WHEREAS, Dr. White's concern for society was evidenced by service on behalf of numerous community and professional organizations including the YMCA, the Chamber of Commerce, the AR Medical, Dental, Pharmaceutical Association, and the Senior Physician of AR; and

WHEREAS, Dr. White served the Little Rock area as a General Practitioner for fifty-five years, actively practicing medicine until his ninetieth birthday; and

WHEREAS, the memory of Dr. White will linger as a source of inspiration for thousands of patients and as a vivid example of consistency and compassion for his fellow physicians to emulate.

BE IT THEREFORE RESOLVED:

THAT, this resolution be adopted and placed in the archives of the Society; and

THAT, a copy be sent to Dr. White's family as a token of our heartfelt sorrow; and

THAT, a copy be made available to *The Journal of the Arkansas Medical Society* for publication.

Adopted:
Board of Directors
January 21, 1998

By Order of the Memorials Committee
Fred O. Henker, III, M.D., Chairman
James W. Headstream, M.D.
Bruce E. Schratz, M.D.

To
those physicians who volunteer
through the Arkansas Health
Care Access Foundation,
Thank You!
As you can see from a sampling of
letters we have received, your
involvement in our program is
appreciated and in many
cases life-saving.

It has been three days since you
sent me to the doctor and I have
a ways to go to be 100%, but I can
breathe and walk across the room
now. I had given up hope almost,
and I remembered Arkansas Health
Care. The doctor gave me two of
the medicines I needed and the
pharmacy you sent me to filled the
"chewed" me out for not coming in
two weeks previously. I'm starting
to feel good again. God bless you.

Western Wildlife

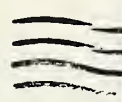
As Easterners moved West, pioneers

found animals as exotic as the landscape...

buffalo, prairie dogs, bears, beaver, bighorn

sheep, cougars, wolves and rattlesnakes.

The eagle became a national symbol.



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Thanks again.

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Medical Practice - 1998 and Beyond



Seminar for Young Physicians

Speaker: L. Michael Fleischman

*In conjunction with the
Arkansas Medical Society 1998 Annual Convention*

Excelsior Hotel - Little Rock, Arkansas
Thursday, April 2, 1998
1:00 p.m. - 3:00 p.m.

CME programs held during the annual meeting are joint-sponsored by St. Joseph's Regional Health Center.

Purpose & Objectives

The purpose of this seminar is to expose residents and young physicians to aspects of practice management which are becoming increasingly important in a managed care environment. At the conclusion of this seminar, participants should be able to understand the basic elements of practice management, evaluate the issues involved with managed care, and examine and compare the various options of setting up private practice.

All young physicians require a knowledge of managed care and practice management issues to effectively compete in today's healthcare environment. Better informed physicians will be able to deal more effectively with managed care and practice management challenges, which should improve overall performance and improve patient care.

Topics Include

- ⇒ The Changing Healthcare Delivery Environment
- ⇒ Perspective on Physician Career Goals
- ⇒ Group Private Practice Concepts and Management
- ⇒ Elements of a Physician Employment Contract
- ⇒ Managed Care Overview

Continuing Medical Education

St. Joseph's Regional Health Center is accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. St. Joseph's Regional Health Center designates this continuing medical education activity for 2.0 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

About the Speaker

L. Michael Fleischman, a principal with Gates, Moore and Company, specializes in alternative delivery systems, practice valuation, managed care negotiations, and university and hospital-based teaching practices. In addition to previously serving on the American Medical Association's Doctors Advisory Network, he has lectured nationally for the American Academy of Orthopaedic Surgeons, the American College of Obstetricians and Gynecologists, and Southern Medical Association. He serves on the Editorial Advisory Board of *Pediatric Practice Management* and *OB/GYN Practice Management*. Mr. Fleischman is a certified Healthcare Consultant and member of the American Association of Healthcare Consultants.

Registration

Register for the **Seminar for Young Physicians** by completing the section under "Optional Events" on the 1998 Annual Session Registration Form on page 421.

Registration Fee for the Seminar for Young Physicians:

	Advanced By March 25	Regular After March 25
Member	\$10	\$15
Non-Member	\$20	\$25

*Educational grant provided by
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New Members

BENTON

McGarry, Patricia G., Family Practice. Medical Education, UAMS, 1994. Internship/Residency, UAMS, AHEC-Pine Bluff, 1995/1997.

BLYTHEVILLE

Keldahl, Loren R., Urology. Medical Education, University of Minnesota Medical School, Minneapolis, 1966. Internship, Cook County Hospital, Chicago, Illinois, 1967. Residency, University of Minneapolis Medical School, 1970. Board certified.

DUMAS

Savu, Mihaela, A., Internal Medicine/Cardiology. Medical Education, Institute of Medicine and Pharmacy, Bucharest, Romania, 1982. Internship/Residency, Morristown Memorial Hospital, Morristown, New Jersey, 1992/1994. Board certified.

EL DORADO

Anaya, Carlos, Pediatric/Neonatology. Medical Education, Universidad Complutense de Madrid, Spain, 1984. Residency, University of Hawaii/University of Chicago, 1992/1993. Board eligible.

EUDORA

Ganta, Sanyasi Rao, Family Practice. Medical Education, Andhra Medical College, India. Internship/Residency, Sanjacinto Methodist Hospital, 1994/1997.

FAYETTEVILLE

Gyles, Nicholas Roy, II, General & Trauma Surgery. Medical Education, UAMS, 1984. Residency, St. Lukes Hospital, Kansas City, Missouri, 1989. Board certified

FORREST CITY

Franks, James F., Family Practice. Medical Education, Georgetown University School of Medicine, Washington, D.C., 1993. Internship/Residency, Wyoming Valley Family Practice, 1994/1996. Board certified.

FORT SMITH

Balis, Luc G., Family Practice. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1994. Internship/Residency, UAMS, AHEC-Ft. Smith, 1995/1997. Board certified.

Gast, Kristie Lynn, Radiation Oncology. Medical Education, University of Kansas School of Medicine, Kansas City, 1990. Internship, University of Missouri School of Medicine, 1991. Residency, University of Kansas School of Medicine, 1994. Board certified.

JONESBORO

Swyden, Steven Neal, Occupational Medicine. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1986. Internship/Residency, 1987/1996. Board certified.

LEWISVILLE

Schwedock, Nicholas, Family Practice. Medical Education, Texas Tech School of Medicine, Lubbock/El Paso, 1994. Internship/Residency, Waco-Family Practice, 1995/1997. Board certified.

LITTLE ROCK

Calhoun, David Lee, Internal Medicine & Infectious Diseases. Medical Education, Vanderbilt University School of Medicine, Nashville, Tennessee, 1978. Internship/Residency, Good Samaritan Medical Center, Phoenix, Arizona, 1981/1983. Fellowship, University of Arizona College of Medicine, Tucson, 1985. Board certified.

Coke, Courtney Colin, Radiation Oncology. Medical Education, Washington University School of Medicine, St. Louis, Missouri, 1992. Internship/Residency, McGill University, 1992/1996. Board pending.

Konzelmann, Daniel J., Pathology. Medical Education, Southern Illinois University School of Medicine, Carbondale/Springfield, 1992. Internship/Residency, Baylor University Medical Center, 1993/1997. Board pending.

Richmond, Marc, Family Practice. Medical Education, Temple University School of Medicine, Philadelphia, Pennsylvania, 1971. Internship Hoag Memorial Hospital, Newport Beach, California, 1972. Residency, Good Samaritan Hospital, Phoenix, Arizona, 1973 and U.S. Naval Family Practice, 1975. Board certified.

Simpson, Steve L., Family Practice. Medical Education, UAMS, 1991. Internship, AHEC-NE, Jonesboro, 1994. Board certified.

Westfall, Christopher, T., Ophthalmology. Medical Education, Ohio State University College of Medicine, Columbus, 1976. Internship, Keesler Medical Center, Biloxi, Mississippi, 1977. Residency, 1989. Board certified.

MENA

Cappello, Nicholas A., Orthopedics. Medical Education, Creighton University School of Medicine, Omaha, Nebraska, 1974. Internship/Residency, State University of New York at Stony Brook School of Medicine, 1975/1980. Board certified.

MONTICELLO

Ridout, Robert Gladstone, III, Diagnostic Radiology. Medical Education, University of Texas School of Medicine, San Antonio, 1973. Internship/Residency, University of Texas and Bexar County and VA University Teaching Hospitals, 1974/1977. Fellowship, UAMS, 1979. Board certified.

MORRILTON

Nawar, Georges, Maurice, General Surgery/Surgical Critical Care. Medical Education, Saint Joseph University, Faculty of Medicine, Beirut, Lebanon, 1988. Residency, New York Medical College, Bronx, 1997. Board pending.

PARAGOULD

Tamayo, Andres Joaquin, Cardiology. Medical Education, Universidad Central del Este, San Pedro de Macoris, Dominican Republic, 1980. Internship/Residency, Jersey City Medical Centre, New Jersey, 1983/1985. Board certified.

RUSSELLVILLE

Price, Larry S., Family Practice. Medical Education, UAMS, 1978. Internship, 1979. Board certified.

SPRINGDALE

Baker, Jeffrey Richard, Family Practice. Medical Education, Oral Roberts University School of Medicine, Tulsa, Oklahoma, 1984. Internship/Residency, Memorial Medical Center, University of California College of Medicine, 1987. Board certified.

WYNNE

Rindt, Phillip Lee, General Practice. Medical Education, University of Kansas School of Medicine, Kansas City, 1971. Internship/Residency, St. Francis Hospital, Wichita, Kansas, 1972/1973.

OUT OF STATE

Howard, Willard Howe, III, Family Practice/Osteopathic Manipulation. Medical Education, Universidad Kirksville College of Osteopathic Medicine, Missouri, 1995. Internship, Osteopathic Medical Center of Texas, Fort Worth, 1996. Residency, Valley Baptist Medical Center, Harlingen, Texas, 1998.

Greenspan, Joseph J., Physical Medicine & Rehabilitation. Medical Education, State University of New York College of Medicine, 1986. Internship, Winthrop University, New York, 1987. Residency, New York University Medical Center, 1990. Board certified.

RESIDENTS

Callaway, James Richard, Jr. Medical Education,

Ross University School of Medicine, Dominica West Indies/New York, NY, 1997.

McCormick, Michael Ellis, Medical Education, Louisiana State University Medical Center, Shreveport, 1996. Internship/Residency, UAMS, AHEC-SW.

Miller, Shawn S., Family Practice. Medical Education, University of Oklahoma College of Medicine, Oklahoma City, 1996. Internship/Residency, UAMS, AHEC-NE.

Naylor, David Lynn, Jr., Family Practice. Medical Education, UAMS, 1996. Internship/Residency, UAMS, AHEC-SW.

Pope, Tammy Kay, Anesthesiology. Medical Education, UAMS, 1993.

Samuel, Meshach, V., Family Practice. Medical Education, Christian Medical College, Vellore, India, 1986. Internship/Residency, Christian Medical College, India.

Staley, Kelly A., Pediatrics. Medical Education, UAMS, 1997. Internship, UAMS.

STUDENTS

Deuter, Brian E.

Fox, Clinton Wade

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Things To Come

March 26-29, 1998

National Kidney Foundation, Seventh Annual Spring Clinical Nephrology Meetings, Consultative Nephrology Program. Opryland Hotel, Nashville, Tennessee. Sponsored by the National Kidney Foundation. For more information, call 1-800-622-9010.

April 2 - 4, 1998

ARKANSAS LOCATION

Arkansas Medical Society - 122nd Annual Session. Excelsior Hotel, Little Rock, Arkansas. Sponsored by the Arkansas Medical Society. For more information, call 501-224-8967 or 1-800-542-1058.

April 22-26, 1998

Critical Care Medicine 1998 - 12th Annual Review and Update. Crystal Gateway Marriott, Washington, DC. Endorsed by the Society of Critical Care Medicine and announced by the Center for Bio-Medical Communication, Inc. For more information, call 201-385-8080.

April 29 - May 2, 1998

International Conference on Physician Health. Victoria, British Columbia, Canada. Sponsored by the American Medical Association and the Canadian Medical Association. For more information, call 312-464-5073.

May 13 - 16, 1998

Collaborating for Access...Capitalizing on Success - the National Rural Health Association's 21st Annual National Conference. Orlando, Florida. For more information, call 816-756-3140.

May 16 1998

Excellence in Diabetes Management. The Ritz-Carlton Hotel, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

June 12 - 14, 1998

ARKANSAS LOCATION

Alumni Weekend '98. Little Rock, Arkansas. Sponsored by the Arkansas Caduceus Club. For all University of Arkansas Medical School graduates in the classes of 1933, '38, '43, '48, '53, '58, '63, '68, '73, '78, '83, '88. For more information, call 501-686-6684.

June 23, 1998 - July 5, 1998

American Medicine in a Critical Perspective - A 12-Day Study Cruise on ms Rotterdam VI. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored jointly by the Florida Medical Association and Continuing Education, Inc. For more information, call 1-800-926-3775.

June 26 - 28, 1998

12th Annual Frontiers in Endourology - Retrograde Intrarenal Surgery, Ureteroscopy, Stents and Other Minimally Invasive Techniques: Nonincisional Access to the Entire Urinary Tract. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

July 17 - 18, 1998

Clinical Allergy for the Practicing Physician. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

October 1 - 3, 1998

Contemporary Cardiothoracic Surgery. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

October 15 - 16, 1998

24th Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

Arkansas Foundation for Medical Care 1998 Quarterly Video Conferences:

Video conferences, Third Thursday of the month, once a quarter. Time: 12 noon to 1:30 p.m. Dates: May 21, August 20 and November 19. Location: UAMS education building/AHECs and Rural Hospital Affiliates. For more information, contact Patricia Williams or Cindy Jones at 501-649-8501, ext. 203.

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Keeping Up

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Thrombus & Other Phenomenon - National Park Medical Center, Ozark/Quapaw Room, Hot Springs. Sponsored by UAMS. For more information, call (501) 620-1420.

April 2, 1998

Critical Care & Emergency Medicine - Arlington Hotel, Hot Springs. Sponsored by UAMS College of Medicine. For more information, call (501) 661-7962.

April 7, 1998

Hypertension - Location will be in Harrison. Sponsored by North Arkansas Medical Center. For more information, call (870) 365-2369.

April 10, 1998

Prostate Cancer - National Park Medical Center, Ozark/Quapaw Room, Hot Springs. Sponsored by UAMS. For more information, call (501) 620-1420.

April 14, 1998

New Trends in Antiplatelet Therapy - North Arkansas Medical Center, Harrison. Sponsored by North Arkansas Medical Center. For more information, call (870) 365-2369.

April 18 - 19, 1998

Nuclear Medicine Update: 1998 - Lake Hamilton Resort, Hot Springs. Sponsored by UAMS College of Medicine. For more information, call (501) 661-7962.

April 24, 1998

Diabetic Retinopathy - National Park Medical Center, Ozark/Quapaw Room, Hot Springs. Sponsored by UAMS. For more information, call (501) 620-1420.

April 30, 1998

Pediatric Infectious Diseases - North Arkansas Medical Center, Harrison. Sponsored by North Arkansas Medical Center. For more information, call (870) 365-2369.

May 2-4, 1998

Spring Sleep Seminar 1998 - Arlington Resort Hotel and Spa, Hot Springs. Sponsored by Washington Regional Medical Center, Fayetteville. For more information contact Bill Rivers, RPSGT at (501) 442-1272.

May 12, 1998

Sun Exposure & Skin Damage - North Arkansas Medical Center, Harrison. Sponsored by North Arkansas Medical Center. For more information, call (870) 365-2369.

May 21, 1998

The Diamond Conference - Arkansas Children's Hospital, Chairman's Hall, Little Rock. Sponsored by UAMS College of Medicine. For more information, call (501) 661-7962.

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Cardiology Conference, 3rd Wednesday of every month, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided
Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center, Room #20
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Fridays, 12:00 noon. Call BMC ext. 1902 for location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

*Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom*

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

*ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.
Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E-142
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Medicine Pathology Conference, Tuesdays, 2:00 p.m., VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Physical Medicine & Rehab Grand Rounds, 4th Friday each month, 11:30 a.m., VAMC-NLR, Bldg. 68
VA Topics in Physical Medicine & Rehab Seminar, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Surgery M&M Conference (Grand Rounds), Thursdays, 12:45 p.m., VAMC-LR, room 2D109
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy*

EL DORADO-AHEC

*Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.*

Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas
Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
FP Journal Club, 2nd Monday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Locations vary. Dinner meeting.
Tumor Conference, 1st Wednesday & 3rd Friday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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Volume 94 Number 11

April 1998

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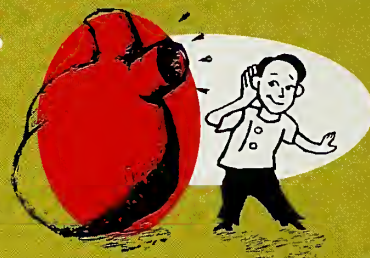
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The Tobacco Industry... ALL BULL OR NO BULL?
see page 485

Clinicopathological Images: Gastric Polyps
see page 491

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*Award-Winning Journal of the Arkansas Medical Society
Recipient of the ASAE Excellence in Communications Award*

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Cover photograph was provided by the Arkansas Department of Parks & Tourism.

The Final Rite

Vickie Henderson, M.D.†*

Relax... I was told after stiff introductions in the hotel room. Some of their names were familiar, but I had never met them before. They assured me they wanted me to be comfortable and offered a drink of water. I declined. Thirst was not an issue.

It was November in Chicago, and the Westin Hotel was busy all week. Similar scenarios were played out in nearby rooms. The agony would last for three hours and we were at their mercy.

The magnitude of the occasion made it difficult to relax. Really, I had spent my entire adult life getting to this place, this once in a lifetime event, at least one hopes it is.

Many hours of preparation and many months of worry. I had known this day was coming for a long time, but my friends didn't seem to understand. They would ask what I was preparing for.

Oral boards, I would reply. A rite of passage like an ancient ritual.

They still didn't understand. I explained that passing the oral boards meant becoming board certified. Blank stares usually followed. FACOG – you know how doctors always have those funny letters after M.D.

The next question was inevitable, do you have to? Well no, I would explain. I know several good doctors who aren't. What happens if you don't? Well, nothing. Perhaps managed care plans will not accept non-board certified physicians.

So why are you doing it? Some would say to be a member of the club. Others to prove that they can. I suppose it's advantageous for medicolegal purposes.

† Dr. Henderson, a member of the editorial board for *The Journal of the Arkansas Medical Society*, is a specialist in obstetrics/gynecology with the Millard-Henry Clinic in Russellville.

* Donotes board certification.

Another academic accolade to hang on the wall in my office. But the real reason why is simply for the sake of completeness. I like to finish what I start, and the oral board exam is the final examination of my long years of education. There have been countless difficult tests through college, medical school and residency and this is the last hurrah. The finish line. Only two weeks later the ABOG sent me a letter accepting me into the club. I was relieved. I called my parents and one of my buddies from residency. For my file, I took a copy of the letter to the administrative secretary of the multi-specialty clinic where I practice. She congratulated me and replied, "Oh, good, I'll call the phone company so we can add an asterisk to your name."

All that for an asterisk?

Topics in Search of Authors

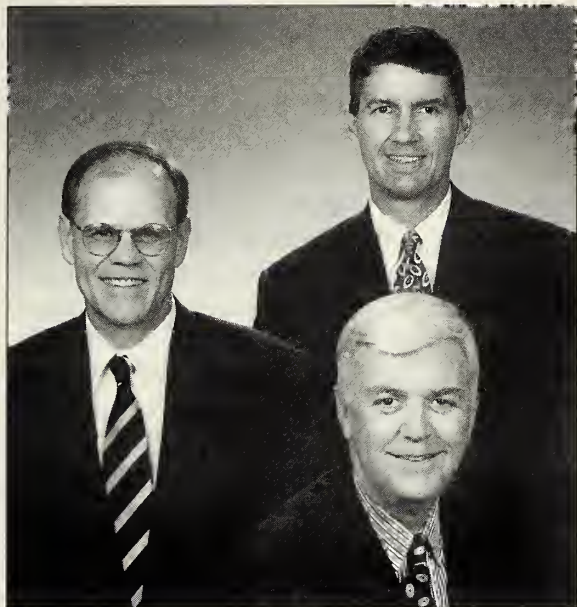
You can influence your peers - and give something back to your profession - if you plan to write an article for *The Journal of the Arkansas Medical Society*.

The Journal needs your thoughts and ideas. So why not consider putting your expertise and experience on paper? Here are some topics in search of an author.

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For information about submitting an article to *The Journal of the Arkansas Medical Society*, see *Information for Authors* on page 512 or call Tina Wade at 501-224-8967 or 1-800-542-1058.

To Trade or not to Trade?...Should not be a multiple-choice question

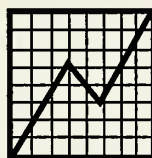


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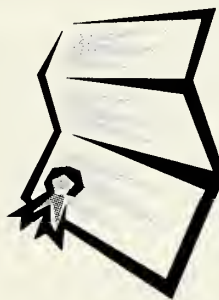
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Health Care Access Foundation

As of March 1, 1998, the Arkansas Health Care Access Foundation has provided free medical service to 13,640 medically indigent persons, received 26,098 applications and enrolled 51,163 persons. This program has 1,896 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

Psychiatrists Honor Distinguished Arkansas Legislator

The American Psychiatric Association is honoring Arkansas State Senator Jay Bradford (D) as a 1998 winner of the Distinguished Legislator Award. In recognition of his deep commitment to people with mental illnesses and his sponsorship of the 1997 Arkansas Mental Health Parity Act requiring insurance benefits for mental illnesses be equal to those for other medical illnesses.

"Senator Bradford has been a champion of mental health even in the face of intense opposition," said Herbert S. Sacks, M.D., president of the American Psychiatric Association. "His steadfast dedication and invaluable strategic guidance should be an example to all legislators around the country."

In addition to sponsoring mental health parity in 1997, Senator Bradford also enhanced confidentiality of medical board credentialing information, improved nomenclature regarding the disabled, and enhanced the rights of crime victims. Senator Bradford is the incoming President Pro Tempore of the Arkansas Senate for the 1999 legislative session.

The award was presented on February 28 at the APA State Legislative and Public Affairs Joint Institute in Fort Lauderdale, FL.

The American Psychiatric Association is a national medical specialty society, founded in 1844, whose 42,000 physician members specialize in the diagnosis and treatment of mental and emotional illnesses and substance use disorders. APA objectives include the advancement and improvement of care for persons with mental illnesses through nationwide public information, education, and awareness programs and materials.

Information provided by an American Psychiatric Association News Release dated February 20, 1998.

The Role of Aspirin and Warfarin in IHD Prevention

Both aspirin and warfarin are effective methods of secondary prevention after myocardial infarction, but their role in primary prevention of ischemic heart disease (IHD) remains unsettled. In this trial from the U.K., 5,085 men aged 45 to 69 and at high risk for IHD were randomized to low-dose aspirin (75 mg daily), low-dose warfarin (enough to keep the INR around 1.5: mean dose, 4 mg), aspirin and warfarin combined, or placebo. Patients in the top 20% to 25% of risk for IHD based on initial measurements of smoking, blood pressure, body mass index, cholesterol, and clotting factors were included in the trial. Patients with a history of peptic ulcer, myocardial infarction, or stroke were excluded.

There were 410 IHD events, one third of which were fatal. Warfarin and aspirin combined prevented about 5 IHD events per 1,000 men per year, whereas warfarin or aspirin alone each prevented about 3 per 1,000 per year. The warfarin plus aspirin and placebo groups had similar rates of stroke of any kind. However, there were significantly more fatal strokes (mostly hemorrhagic) in the warfarin plus aspirin group than in the placebo group (1.5 vs. 0.1 per 1,000 persons per year).

Comment: Aspirin and warfarin combined appear to be more effective than either alone in primary prevention of IHD in men at high risk. However, the drawbacks with using warfarin include the need to measure INR values regularly and the risk for serious bleeding. This trial does not offer the definitive answer on the role of warfarin and aspirin in the primary prevention of IHD, but it helps to fill in the picture. - *B Jarman*

The Medical Research Council's General Practice Research Framework. Thrombosis prevention trial: Randomized trial of low-intensity oral anticoagulation with warfarin and low-dose aspirin in the primary prevention of ischaemic heart disease in men at increased risk. Lancet 1998 Jan 24; 351:233-41.

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Characterizing the Uninsured and the Underinsured

Despite the changing patterns of U.S. health care financing, adequate care remains too costly for a sizable number of families. In this CDC study, more than 90,000 representative U.S. adults between ages 18 and 64 were surveyed by telephone about insurance coverage and its adequacy. Those without coverage were labeled "uninsured," while those with some insurance but ongoing cost concerns preventing access to care were labeled "underinsured." The remainder were considered adequately insured.

Overall, 79% of respondents were adequately insured, 14% had no insurance, and 7% were underinsured. There was considerable state-to-state variability. Hawaii had the highest number of adequately insured adults (87.9%) and the lowest number of uninsured adults (6.8%). Louisiana had the highest number of uninsured adults (24.6%) and the lowest number of adequately insured adults (67.8%). Underinsured rates ranged from 4.3% (Wisconsin) to 9.0% (Mississippi and Kentucky). Interestingly, most of the uninsured or underinsured in this study were employed.

Comment: These numbers reflect the continued difficulties America's working poor have in paying for health care. This survey included only households with telephones; the true prevalence of inadequate health insurance is probably higher. - *A Zuger*

State-specific prevalence estimates of uninsured and underinsured persons - Behavioral risk factor surveillance system. MMWR 1998 Jan 30; 47:51-5.

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National Market Trends

*Blue Cross and Blue Shield of Massachusetts, which has been experiencing financial troubles, is negotiating with FPA Medical Management, a California-based physician practice management company, to run its health plans. Apparently FPA is seeking to negotiate a 10-year deal which would give them full authority to negotiate physician contracts and set rules for managed care plans. FPA's aggressive cost-cutting practices have brought criticisms in other markets and are raising concerns among Massachusetts providers. (*Boston Herald, February 9, 1998*)

*The prompt payment issue is heating up in Texas, where the Texas Department of Insurance (TDI) has weighed in on behalf of physicians and other providers, issuing a warning that if health plans do not pro-

vide prompt payment as required by law they will be subject to disciplinary action. Under Texas law, plans must pay providers for covered services within 45 days and must pay physicians their capitated payment fees within 60 days after the enrollee has selected a primary care physicians. A TDI investigation found significant violation of the provisions, and indicated that penalties for non-compliance can range from a small fine to losing the insurance license. (*Houston Business Journal, February 2, 1998*)

*The New York County Medical Society has filed two arbitration proceedings in the wake of Oxford Health Plan's chronic late payment problem. The first proceeding asks the arbitrator to review the physicians' claims and to order Oxford to pay the claims, while the second asks the arbitrator to require Oxford to establish clear payment guidelines. These actions were taken amidst rumors that Oxford may merge with Aetna/U.S. Healthcare, one of the nation's largest plans. (*Dow Jones/Ft. Worth Star-Telegram, February 3, 1998*)

*A Louis Harris and Associates poll found that over half of physicians blame HMOs for a perceived decline in the U.S. health care system between 1994 and 1995, with physicians in markets with high managed care penetration the most disgruntled. Sixty seven percent of physicians in high managed care markets complained of HMOs moving patients around (compared to 48% in low managed care markets), 42% complained of limits on specialist referrals (compared to 25% in low managed care markets) and 41% complained of limits on tests and procedures (compared to 27% in low managed care markets). (*Hospitals and Health Networks, January 20, 1998*)

*The Medical Quality Commission (MQC), a California-based not-for profit accreditor of capitated medical groups and independent practice associations, is ceasing operations. MQC leaders indicated that there is no real demand for the service in the current environment, where employers and other institutions are focusing on quality measures at the health plan level. However, observers note that MQC may have been ahead of its time and predict a need for the service in the future. (*Modern Healthcare, January 19, 1998*)

*A Securities and Exchange Commission (SEC) task force has issued rules to standardize accounting by physician practice management companies (PPMCs) that may have a significant impact on future PPMC deals. Among other things, PPMCs will be limited in their ability to consolidate the revenues of affiliated physician practices into their corporate revenues. To do so, they must enter contractual agreements of at

least 10 years with the practices, and must have exclusive control over key operating issues and matters such as total physician compensation. The rules also disallow pooling-of-interest mergers, which means companies must actually purchase practices. Observers note that the rules could make it somewhat more difficult for PPMCs to tap the public market and may also lower the prices for physician practice acquisitions. (*Modern Healthcare*, January 19, 1998)

*A study by the Lancaster (PA) Heart Foundation found that HMO members are twice as likely to die from heart attacks as fee-for-service patients. The study also notes that fee-for-service patients receive catheterization and angioplasty at higher rates than HMO members. (*Hospitals & Health Networks*, January 20, 1998)

Information provided by the AMA FED-NET, 2/16/98.
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Schubert's Unmanaged Symphony



A managed care company president was given a ticket for a performance of Schubert's Unfinished Symphony. Since she was unable to go, she gave the ticket to one of her managed care reviewers. The next morning she asked him how he had enjoyed it. Instead of a few observations about the symphony in general, she was handed a formal memorandum which read as follows:

1. For a considerable period, the oboe players had nothing to do. Their number should be reduced, and their work spread over the whole orchestra, avoiding peaks of inactivity.

2. All 12 violins were playing identical notes. This seems an unneeded duplication, and the staff of this section should be cut. If a volume of sound is really required, this could be accomplished with the use of an amplifier.

3. Much effort was involved in playing the 16th notes. This appears to be an excessive refinement, and it is recommended that all notes be rounded up to the nearest 8th note. If this were done it would be possible to use para-professionals instead of experienced musicians.

4. No useful purpose is served by repeating with horns the passage that has already been handled by the strings. If all such redundant passages were eliminated then the concert could be reduced from two hours to twenty minutes.

5. The symphony had two movements. If Mr. Schubert didn't achieve his musical goals by the end of the first movement, then he should have stopped there. The second movement is unnecessary and should be cut.

In light of the above, one can only conclude that had Mr. Schubert given attention to these matters, he probably would have had time to finish the symphony.

Source unknown. This information was received through E-mail at the AMS office.

AMS Newsmakers

Dr. Sue Chambers, a Harrison pediatrician, was recently appointed by Gov. Mike Huckabee to the state medical board. She will serve an eight-year term.

Dr. and Mrs. G.F. Wynne were honored recently as the Bradley County Citizens of the Year at the annual banquet of the Chamber of Commerce in Warren. Dr. Wynne, a Fordyce native, practiced medicine in Warren for over forty years prior to his retirement.

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS recipients for the month of January 1998 are: Carlos Adolfo Araoz, Little Rock; James Henry Arkins, Bentonville; Dabney Hazelton Brannon, Fayetteville; Peggy Jeane Brown, Searcy; Stuart Dean Haraway, Fort Smith; Jonathan Louis Hoyt, DeQueen; Michael Todd King, Little Rock; Thomas Albert Langston, Harrison;

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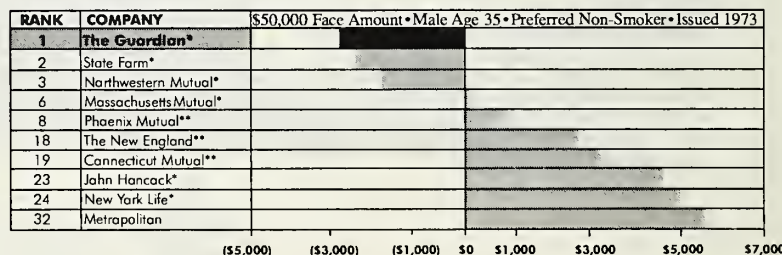
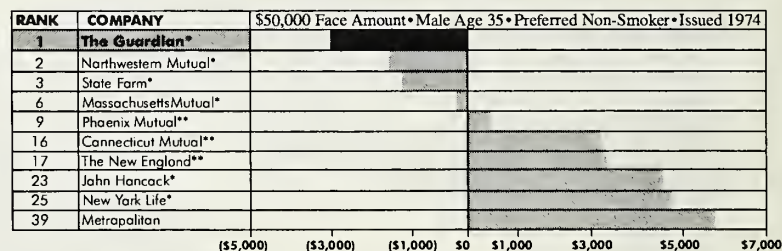
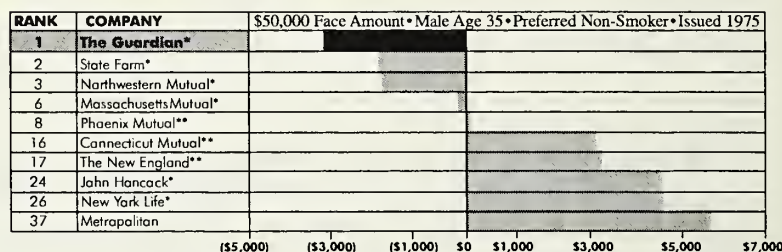
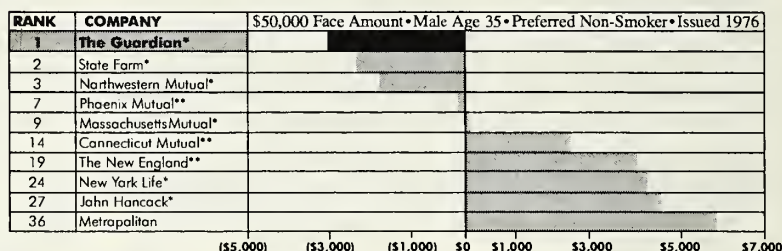
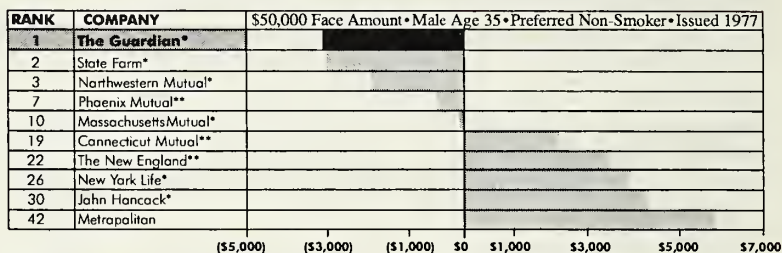
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New Member Profile



Lynda Beth Milligan, M.D.

PROFESSIONAL INFORMATION

Specialty: Family Medicine

Years in Practice: First year

Office: North Little Rock

Medical School: UAMS

Residency: UAMS

Other Business Affiliates/Organizations: American Medical Association;

American Academy of Family Physicians; American Society for Clinical Pathologist; and Board member of both the Association for Retarded Citizens of Arkansas and the Prudential Health Advisory Board

Volunteer work: Association for Retarded Citizens, Arkansas Chapter; the Osmond Family Network, Health Editor; and President of the Chris Burke (star of *Life Goes On*) Fan Club

Honors/Awards: 1997 UAMS Clinical Excellence Award

PERSONAL INFORMATION

Date/Place of Birth: October 23, 1961, in Batesville, Arkansas

Pets: A large (100-pound) dog named Madison and used to own the horse in the photo above

Hobbies: Playing the trumpet, French horn and golf plus collecting autographs and Disney toys

THOUGHTS & OTHER INFORMATION

If I had a different job, I'd be: CEO of the Disney Corporation

Historical person I most identify with: Annie Oakley

Worst Habit: I talk too much

Best Habit: I'm nice to most people

Favorite junk food: Chocolate chip cookies and pizza

Behind my back, they say: I'm crazy, funny and nice

Most valued material possessions: My trumpet and computer

The turning point of my life was when: I was saved (became a Christian) at nine years old and the birth of my nephew almost three years ago

Nobody knows: That I am writing a book

One of my pet peeves: People who smoke around me

Favorite vacation spot: Walt Disney World

One goal I haven't achieved, yet: Having a family of my own

One goal I am proud to have reached: Graduating from medical school

Favorite childhood memory: Playing with my best friend and putting on shows for the neighborhood kids

When I was a child, I wanted to grow up to be: A musician and work in the medical field

The last book I read: "Don't By-Pass the By-Pass" by J. Holmes

Favorite music: Southern Gospel and Contemporary

One word to sum me up: Kind

My philosophy on life: A scripture verse from *Philippians 4:13*, "I can do everything through Him who gives me strength."

Anything else you want to mention: I would like to thank my family for their support.

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All Bull and Proud of it

Lee Abel, M.D.*

Have you seen the recent Winston cigarette ads that have run in full and half page color ads in the Sports Section of the *Arkansas Democrat-Gazette*? Here's a sample:

1) The photo: An attractive young female looks into the camera provocatively. The caption: "Yeah, I got a tattoo. And no, you can't see it."

2) The photo: A close-up of a young male's muscular upper torso. A tattoo on his powerful arm is of a bikini clad young female with a Barbie doll figure. The caption: "You're looking at my feminine side."

3) The photo: An attractive young female lounging over the pool table coyly looks into the camera. The caption: "I'm not all sugar and spice. And neither are my smokes."

These slick new ads are eye catching, flirtatious, and fun. They utilize cutting edge advertising techniques to tweak convention and push the limits - why they're almost outrageous! Best of all, it's done with an attitude that's oh so sexy, cool, and clever. Winston's slogan for this series is "No Bull." Remember "Winston tastes good like a cigarette should." Sounds almost quaint in comparison. It is amazing and sobering how these ads stick in your head. The really frightening part is this: *these ads are effective.*

It's no surprise that cigarette ads are very well done. The tobacco companies are able to afford the very best advertising talent available. The images of youth, strength, beauty, vitality, and sex are skillfully used to sell a product that leads to premature aging, weakness, disfigurement, disease, and death. If you don't find these Winston ads attractive then you must be an old fogey (way over 20 years old, I'd bet). Of course that's the point. These ads aren't for adults.

Research has shown that Joe Camel, the cartoon character and smooth operator who hawks Camel cigarettes, is as well known to young children and pre-teens as Mickey Mouse. I think these Winston ads target a more "mature" audience, say 14 to 24 years old. But in reality, 24 is too old. The tobacco companies well know (being able to afford the very best in market research)

that if they don't hook you during adolescence, then they have probably lost their chance. Most people who smoke, start as a teenager (often in their early teens). Adults just don't seem to take up the "habit."

The hip attitude of these Winston ads seems to offer an invigorating freedom, but you wake up later and discover that reality is an enervating servitude to a harmful product. Health concerns are often just not on the radar for teenagers. Heart disease, emphysema, and cancer all seem like old people's issues. For many adolescents, the real issues are about how they fit in, are they good enough, and are they attractive to members of the opposite sex. These normal anxieties, coupled with youthful rebelliousness, are the very foundation of the tobacco industry. Innocent experimentation can go on to regular smoking. Regular smoking is how you get addicted. And addiction is what leads to the enormous profits of the tobacco industry. And those profits allow the expensive advertising campaigns designed to hook new customers in each upcoming crop of young people. And so it goes.

Nonsmokers sometimes underestimate how powerful nicotine addiction is. It's so powerful that you can watch it kill your parents, kill your spouse, kill your best friend, yet still be unable to stop smoking yourself. It's sad when patients suffering from tobacco induced disease tell how much they wish they had not started smoking and how much they wish they could stop. It's even more poignant when they tell of how much they hope their children don't start smoking. As the father of two children in the target age group of the tobacco company ads, I too am concerned because I know the power of media images and peer pressure.

Former Surgeon General Dr. C. Everett Koop and former head of the FDA Dr. David Kessler in the February 18, 1998, issue of *JAMA* write:

"For years, the tobacco industry has marketed products that it knew caused serious disease and death. Yet, it intentionally hid this truth from the public, carried out a deceitful campaign designed to undermine the public's appreciation of these risks, and marketed its addictive products to children. The industry long ago knew that nicotine was addictive, but kept its find-

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ings secret and consistently denied the fact, even as overwhelming evidence to the contrary eventually emerged."

As Congress begins to consider comprehensive tobacco control legislation, Dr. Koop and Dr. Kessler argue that this "rogue industry" should not be given the legal immunity for all "past, present, or future wrongdoing" that the industry so desperately wants. According to the Feb. 18, 1998, *New York Times*, a lawyer for the tobacco industry said that "without such legal protection the companies would fight in court any effort by Congress to restrict their advertising or prevent them from marketing cigarettes to teenagers." The lawyer said the companies "would argue that their right of free expression had been violated." Of course we already regulate tobacco advertising (it's not on TV) and commercial freedom of speech is different from personal freedom of speech. Even personal freedom of speech has limits. You can't yell fire in a crowded theatre. Yet, that's exactly what the tobacco companies are doing. But don't expect the tobacco companies to do the right thing. They never have. The *New York Times* article went on to say that the lawyer threatened that the companies would try to "tie up the matter in court for years."

This, then, is the Saddam Hussein like tactic of the tobacco companies: give us immunity or we will continue to target (very effectively) your children. One might imagine this as the plea bargain offered by some hardened drug lord in a Hollywood movie, but this is real life. How much longer will our society allow itself to be held hostage to the lies, deceit, and blackmail of the tobacco industry? Over the course of this year, we will witness the power of tobacco company money on Congress verses the less well funded voices for the public good. We will see if we have the wisdom and courage to stop "All Bull" from being pushed as "No Bull."

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Intracytoplasmic Sperm Injection into Oocytes of Severe Male Infertility Patients: *UAMS Experience*

Maha M. Mahadevan, D.V.M., Ph.D.*

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Mahlon O. Maris, B.A.***

Dean Moutos, M.D.****

Alex Finkbeiner, M.D.*****

In vitro fertilization (IVF) is routinely used as a treatment for male infertility. In some male infertility patients when semen quality is poor, intracytoplasmic injection of single sperm into each oocyte have been shown to achieve fertilization and pregnancy. At UAMS, fertilization rate of 60% and pregnancy rate of 35% have been achieved in 1997. These rates are similar to the fertilization rates and pregnancy rates achieved after IVF with normal semen. In addition, we have obtained high fertilization with sperm obtained from the epididymis in two patients with obstructive azoospermia and one of them achieved ongoing pregnancy.

Introduction

In vitro fertilization is routinely used as a treatment for male infertility.¹ However, in some patients with very low sperm concentration or poor motility, or high anti-sperm antibodies or for unknown reasons fertilization can fail in vitro. For these patients micromanipulation of sperm and oocytes has been shown to improve fertilization rates and many healthy babies have been born after embryo transfer.^{2,4} The main reason for the fertilization failure is that the sperm fail to bind or penetrate the tough zone pellucida.

The following three alternative techniques have been successfully used to bypass the zone pellucida:

a). Subzonal insemination (SUZI): This procedure involves placing one to ten sperm under the zona pellucida. Acrosome reacted sperm can fuse with the oolemma and fertilize the oocyte.³ Because a large size

sperm insertion pipette is used some oocytes can be damaged.

b). Partial zona dissection (PZD): This procedure involves making an opening in the zona pellucida with a needle so that the sperm can swim through the opening and fertilize the oocyte.²

c). Intracytoplasmic injection (ICSI): This procedure involves injecting a single sperm into the cytoplasm of an oocyte.⁴

The success rate, both fertilization rate and pregnancy rate, appears to be significantly higher with SUZI, PZD, or ICSI than IVF alone. Generally, the fertilization rates for male infertility patients with PZD or SUZI are in the 20 to 30 % range and about 5 to 10% of the attempted cycles result in clinical pregnancy. Recent reports⁵ indicate that ICSI can result in high fertilization (50%-60%) and pregnancy rate (20-30%). The world wide experience with these micromanipulation techniques is limited.

The University of Arkansas for Medical Sciences (UAMS) began an IVF program in 1988 and introduced SUZI and PZD in 1992 and ICSI in 1994. Shortly after we started ICSI it was clear from the data of our program and others that ICSI was superior to SUZI or PZD and we have completely switched to ICSI. We report our experience with ICSI in treating patients at UAMS.

Materials and Methods

Standard protocols for ovarian stimulation were used for human IVF.⁶ Briefly, patients were down regulated with leuprolide acetate (Lupron; TAP Pharmaceuticals, Dearborn, IL) beginning in the mid-luteal phase. Once ovarian suppression occurred, human menopausal gonadotropins were begun. Oocytes were retrieved 35 to 36 hours after human chorionic gonadotropin injection, washed in medium and pooled in one or two dishes. Pooled mature oocytes were randomly selected and placed in an organ culture dish

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Table 1: Results of Intracytoplasmic Sperm Injection: UAMS Experience

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>
Number of Cycles	11	15	25	18
Number of Oocytes	134	194	360	191
Number of fertilized (%)	33 (24.5)	92 (40.0)	230 (63.3)	113 (59.2)
Cycles with no fertilization (%)	1 (9.1)	2 (13.3)	0* (0.0)	1 (5.6)
Cycles with frozen embryos (%)	0 (0.0)	6 (46.2)	14 (60.9)	11 (64.7)
Number of Embryo Transfers	10	13	23	17
Number of Clinical Pregnancy (%)	1 (10.0)	4 (30.8)	6 (26.1)	6 (35.3)
Number of Deliveries and ongoing (%)	1 (10.0)	4 (30.8)	6 (26.1)	6 (35.3)

**Embryos from two patients were frozen stored for future transfer.*

containing media with 5 mg/ml bovine serum albumin (BSA, Sigma, St Louis, MO).

Approximately 4 to 6 hours after collection, oocytes were placed in a dish containing 75 IU/ml hyaluronidase for few minutes to remove most of the cumulus. Then the oocytes were moved to a dish with fresh Ham's F10 - HEPES or phosphate buffered saline containing BSA, pyruvate and glucose. Using a fine pulled pipette the corona was removed and denuded washed oocytes were placed in a fresh dish and examined for oocyte maturity. Mature and immature oocytes were placed in separate dishes in an incubator.

Motile sperm were harvested from ejaculated semen by a gradient sperm washing technique.⁶ In two azoospermic patients sperm was aspirated from the epididymis by microsurgical aspiration under general anesthesia and processed as above. Sperm suspension was placed in a drop of 10% polyvinylpyrrolidone solution. Then a slow moving sperm with normal morphology was immobilized by touching the tail with a pipette before aspiration. If only few sperm were present, sperm from the original drop was aspirated and placed in PVP drop rinsed and then aspirated just before injection. The mature oocyte already placed in the same dish was aligned so that the polar body (PB) location was at 6 or 12 o'clock position (see Fig. 1). The holding pipette and injection pipette were lowered closer to the oocyte. The oocyte was gently aspirated and held by the holding pipette so that the PB was at the 6 or 12 o'clock position.

Then the injection pipette was moved closer to the zona and sperm in the pipette was moved near the tip. The pipette was inserted in to the oocyte close to 9 o'clock position taking care not to touch the far side oolemma. Penetration at the near side oolemma was confirmed by aspirating some cytoplasm and sperm to about 60 μ m. Sperm was slowly injected away from the tip of the pipette near the far side membrane.

After injection, all the oocytes in the dish were washed and transferred to a fresh dish and placed in the incubator. Approximately 12 to 20 hours after in-

semination oocytes were examined for fertilization. Oocytes and embryos were incubated in a humidified air of 5% CO₂, 5% O₂ and 90% N₂ at 37°C. After culture for 2 to 3 days, embryos were transferred to the uterus at 4 to 8-cell stage (Fig 2). A clinical pregnancy was defined as positive hCG and ultrasound confirmation of any intrauterine gestational sac with a heartbeat, approximately 4 weeks after embryo transfer.

The outcome of ICSI was retrospectively analyzed comparing patients in 1994, 1995, 1996 and 1997. Chi-square non-parametric analysis was done to determine the statistical significance of the comparisons.

Results

From 1994 to 1997 there was an increase in the number of patients undergoing IVF with ICSI and now about 20 to 25% of all IVF patients undergo ICSI. The fertilization rate in 1996 and 1997 was significantly higher than in 1995 ($p=0.0003$) and the rate in 1995 was higher than in 1994 ($p=0.00005$). Although the sample size is small, the pregnancy rate in 1995 to 1997 appear to be higher than in 1994. The fertilization rate and clinical pregnancy rate in 1997 is approximately 60% and 35% respectively. Approximately 60% of the patients who had ICSI were able to cryopreserve at least one good quality embryo for future use. In addition, two of the 11 patients who had frozen embryo transfer after IVF with ICSI conceived and one of them has delivered.

In the two azoospermic patients, we achieved 18 normal fertilizations of the 29 oocytes (62%) undergoing ICSI. One of the two couples is currently pregnant in her second trimester.

Discussion

Since the early days of IVF, it was known that male infertility patients (including those with sperm antibodies) had lower fertilization rates than patients with tubal infertility.^{1,7} This may not be true any longer because with ICSI high fertilization and pregnancy rates can be achieved⁵ and the UAMS experience is very encouraging. All patients undergoing IVF with ICSI

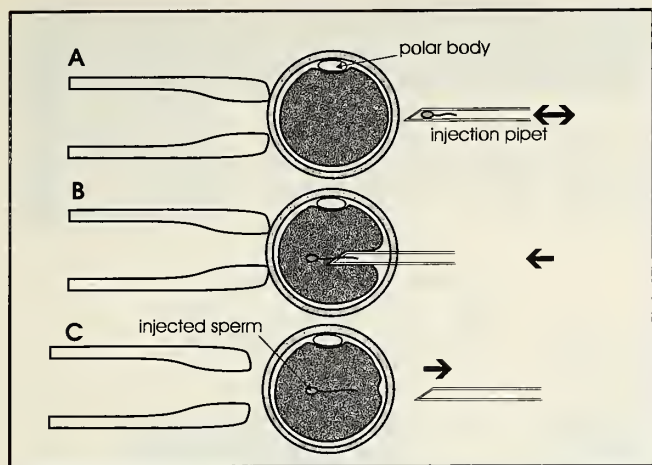


Figure 1: A schematic diagram showing intracytoplasmic sperm injection. A) Mature oocytes were stabilized with a holding pipet (arrows; suction) and single sperm in the pipet ready for injection. B) Sperm being injected into the cytoplasm. C) Oocyte was released from the holding pipet after withdrawal of the injection pipet.

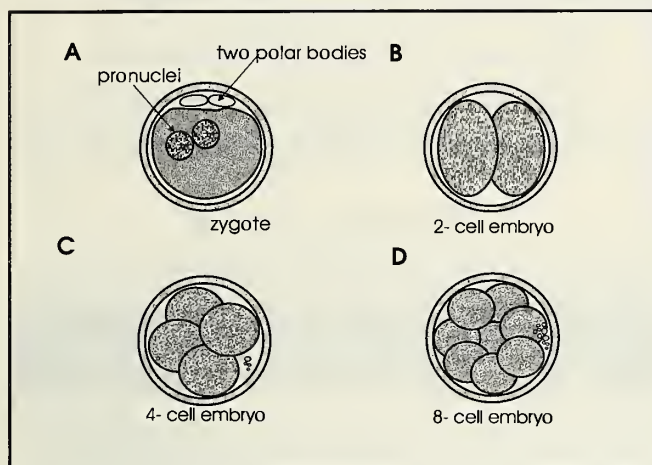


Figure 2: A schematic diagram of zygote, 2-cell, 4-cell and 8-cell development. A) Zygote showing 2 polarbodies and 2 pronuclei indicating normal fertilization at 12-20 hours of injection. B) 2-cell embryo. C) 4-cell embryo. D) 8-cell embryo.

are counseled by their physicians regarding the possibility of transmitting any genetic factor which may be causing the infertility. Azoospermic patients with congenital epididymal obstruction have a high incidence of cystic fibrosis and these couples need to be screened and counseled appropriately. In a follow-up of 877 children born, there was no significant increase in major congenital abnormalities after IVF with ICSI.⁸ However, there may be a small increase in sex chromosomal abnormalities which needs further study.

Since ICSI is a new procedure reported only in 1992, the technique still is being perfected and improved. In addition it is well known that ICSI like any other microsurgical procedure has a learning curve of about 6 to 18 months. Although some of the factors involved in the success of ICSI such as the need to immobilize the sperm and aspiration of the cytoplasm

are being understood, ICSI is still an art more than a science. The procedure requires that the ICSI technologist maintain the skill by frequent practice by doing many procedures in the human or practice in an animal model. Even in the skilled hands the success of the procedure is not very high. Normal fertilization occurs in only approximately 50 to 70% of the injected oocytes. There is some wastage because of damage to oocytes (5-10%). However, these fertilization rates are similar to the fertilization rates achieved with normal semen after IVF without ICSI.

Most male infertile couples prefer to use their gametes whenever possible, the use of ICSI for all severe male infertility patients has become routine in most large IVF programs. Semen cryopreservation before cancer therapy is recommended to patients by oncologists and urologists. In the past the use of cryopreserved poor quality semen was not very successful when insemination or IVF was used. With recent success of IVF with ICSI even with immotile but live sperm⁹ it is prudent to counsel all patients undergoing cancer therapy to freeze and store semen with any live sperm. ICSI is now being used successfully with sperm from epididymis or testis including elongated spermatids.^{8,10} Although there have been reports of pregnancies after ICSI with round spermatid, clinical utility is not clear.¹⁰ Therefore, at UAMS we offer patients with severe male infertility or obstructive azoospermia a chance to conceive provided we can obtain mature sperm from epididymis, mature or immature sperm from testis or at least elongated spermatids from testis.

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CLINICOPATHOLOGICAL IMAGES

Nick Paslidis, M.D.*
Michael Wallace, M.D.**

Gastric Polyps

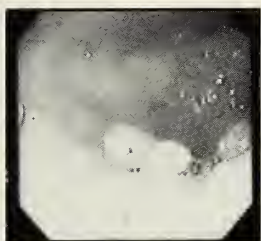


Figure 1

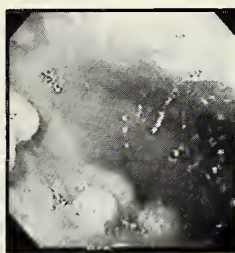


Figure 2

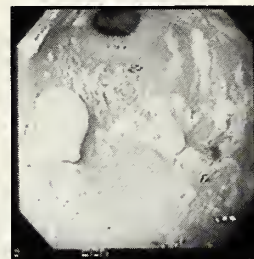


Figure 3

Figures 1 and 2: Multiple Gastric polyps in mid-fundic gastric mucosa with recent hemorrhagic features.

Figures 3: Pre-antral gastric polyps with small food particles, probably secondary to diabetic gastroparesis.

Gastric polyps are quite rare and mostly asymptomatic. Their importance lies in their strong potential to progress to carcinoma. Occasionally, pedunculated polyps arise in the antrum and can cause gastric outlet obstruction by obstructing the pylorus. Large and intramural polyps require laparotomy and excision, although the management of gastric polyps is based on polyp size and treatment is primarily by snare polypectomy.

In a retrospective endoscopic study, gastric polyps were mainly hyperplastic 75.6%, adenomas 6.6% and inflammatory the remaining. In 27% of patients more than 1 polyp was noted.

The patient shown above is a 68 year old female who presently with early satiety, persistent mid-abdominal pain and iron deficiency anemia. During evaluation by an EGD, 8 polyps were identified in the antrum and fundus and were removed by snare polypectomy. Histopathology revealed 7 polyps to be hyperplastic and 1 adenomatous.

Authors

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Unanswered Questions - Somebody Pays

J. Kelley Avery, M.D.

Case Report

A 45-lb 5-year-old boy had had recurrent bouts of tonsillitis and otitis media virtually all of his life, and in the preceding year had been ill on six separate occasions, requiring antibiotics and absence from kindergarten with each episode. His physician had observed the progressive hypertrophy of the tonsils and adenoids and, because of the enlargement and the recurrent febrile bouts of tonsillitis and otitis media, had discussed with the mother the need to consider surgery. The decision was made and the surgery was scheduled.

Tonsillectomy was to be done as an outpatient procedure, and after appropriate education of the parents as to its risks and benefits, the child was admitted. After clearance by the anesthesiologist, routine pre-operative medication was given and the procedure was done without incident. The operative note by the surgeon noted some "excessive" bleeding which was "easily" controlled by pressure and fulguration. Postoperative orders included Demerol 25 mg every three hours as needed, Phenergan suppository 25 mg every three hours as needed for nausea/vomiting, and other supportive measures. In the recovery room, an IV of 500 ml D5 1/4 NS was running. Orders were written by the anesthesiologist for IVs to follow, 500 ml D5 1/4 NS, 500 ml D5 1/4 NS, and another 500 ml D5 1/4 NS. On arrival in the recovery room the patient was described as unresponsive, breathing shallow, color good, lying on the right side. Ten minutes later 15 mg Demerol was given IM and 50 minutes later this was followed by another 10 mg Demerol IV and a 12.5 mg Phenergan suppository. He voided normally 250 ml clear urine, was reacting appropriately, and was discharged from the recovery room about two hours after the operation.

The patient vomited a small amount of bile colored emesis on three occasions about three hours post-operative and was given another 12.5 mg Phenergan suppository. Six hours postoperative the child was still having small amounts of bile colored emesis and the anesthesiologist was consulted. Reglan 2 mg and

droperidol 0.25 mg IV was ordered as needed for nausea and vomiting, and was given. The order was not timed, the medication was not charted, and the physician did not see and examine the child prior to ordering the medication. Some time later, perhaps an hour, another 5 mg Demerol was given IV.

About one hour after the last medication was given the child was described as "resting comfortably," but very soon after this observation the mother called the nurse and reported that her child had suddenly gripped her hand very tightly and begun to breath very heavily. Respirations were described as "moist" and a "large amount of frothy bloody secretion" was aspirated from the throat. About eight minutes later, intubation was attempted by the respiratory technician, but was not successful, and the patient was immediately transferred to the operating suite. The attending physician and the anesthesiologist arrived about 30 minutes afterward. The child was being given 100% O₂ by bag. Pupils were "dilated" and the patient was "cyanotic." Intubation was accomplished immediately by the anesthesiologist. Color and vital signs improved. At time of intubation the O₂ saturation was recorded at 21%, becoming 88% in a matter of seconds. Chest x-ray revealed bilateral infiltrates. A sodium of 122 became 124 over the next hour with fluid resuscitation. O₂ saturation was 78% just prior to transfer to the intensive care unit and deteriorated despite ventilatory support. Ventricular fibrillation occurred which was thought to be central in origin, and the patient was declared brain dead 24 hours after the operation.

A lawsuit was filed alleging negligence on the part of the attending physician, the anesthesiologist, and the institution.

Loss Prevention Comments

After a tragedy of this kind, everybody involved with the care of this patient suffers along with the family. Many facets of the postoperative care of this patient can be questioned. Were the postoperative orders for narcotics excessive, and was the staff too aggressive in its use? Did the combined use of the antiemetic, Phenergan, which is known to have some potentiating interaction with the narcotic, play a role in this death? Did the untimed order for the droperidol, which was not recorded as having been given, throw

* Dr. Avery is Chairman of the Loss Prevention Committee, State Volunteer Mutual Insurance Co., Brentwood, TN. This article appeared in the March 1995 issue of the *Journal of the Tennessee Medical Association*. It is reprinted here with permission.

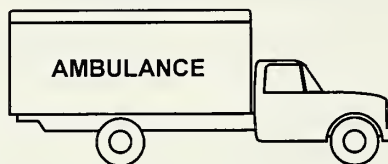
enough doubt as to the activities of the nursing staff and the anesthesiologist to be damaging to them in the lawsuit? Was the 2,000 ml of D5 in 1/4 NS enough to produce some fluid overload, driving the sodium down to dangerous levels? Should there have been more capacity in the hospital to get this patient intubated in a timely manner?

Almost certainly the death was due to massive pulmonary aspiration of gastric contents. When did this occur? Did medication cause or contribute to this complication? There can be no absolute answer to any of these questions, but all of them can certainly be seen to have had some adverse effect. While this is all

speculation, and subject to differing opinions, the fact that the anesthesiologist did not examine this child after he had been consulted by the nurse and before ordering the additional medication is not in dispute! Had he come and examined the patient, would his orders have been any different or could he have intervened at that time and prevented this tragic outcome? There remains the possibility that, under those circumstances, the outcome could have been different. A large settlement charged to the anesthesiologist's corporation was negotiated, ending this very unhappy situation.

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Debasis Das, M.D.*
Tamim Antalki, M.D.**
J. David Talley, M.D.*

Tuberculous Pericarditis?

Despite the advances that modern medicine and technology have provided, the diagnosis of tuberculous pericarditis can be difficult. We report the hospital course of a patient with presumptive tuberculous pericarditis and review the etiology, diagnosis, and treatment of this condition.

Patient Report

A 46-year-old black male was admitted with chest discomfort, low grade fever and night sweats. Five years earlier he tested positive to a tuberculin skin test and received Isoniazid for one month. He also gave a history of exposure to "open" cases of pulmonary tuberculosis while incarcerated four years earlier. On physical examination, there was a low-grade fever and a triphasic pericardial friction rub. A chest x-ray showed an enlarged cardiac silhouette. A transthoracic two-dimensional echocardiogram revealed a moderate sized pericardial effusion without evidence of hemodynamic compromise (Fig. 1). A CT scan of the chest showed small bilateral pleural effusions and calcified right peritracheal and hilar lymph nodes. A tuberculin skin test elicited a 15 x 14 mm induration. HIV test and p24 antigen was negative.

Tuberculous pericarditis was suspected to be the culprit. A subxiphoid pericardial fluid drainage and biopsy was performed. Approximately 500 ml. of serosanguinous fluid was drained. The pericardium was thickened and had fibrous adhesions. The pericardial fluid was negative for acid-fast bacilli. Biopsy showed fibrous pericarditis without granuloma. A polymerase chain reaction (PCR) test for *Mycobacterium tuberculosis* DNA on biopsied tissue was also negative. Despite these negative results the patient was started on triple antituberculosis therapy (INH, Ethambutol,

Pyrazinamide). After three days of therapy, the patient became afebrile and his constitutional symptoms subsided. He was subsequently discharged home to complete nine months course of these antituberculous medications. To date, he remains well and without signs of pericardial constriction. Pericardial fluid culture remained negative for growth of *Mycobacterium tuberculosis* 8 weeks after drainage.

Discussion

The patient probably had tuberculous pericarditis. Although a definitive microbial diagnosis was not made, the suggestive clinical presentation, a positive tuberculin test, evidence of old granulomatous disease on chest CT and dramatic response to antituberculous drugs point to this diagnosis.

Etiology and pathogenesis - Tuberculous pericarditis usually develops by retrograde spread from peribronchial, peritracheal or mediastinal lymph nodes or by early hematogenous spread from the primary tuberculous infection.¹ Although its incidence has declined in industrialized nations in the last four decades, there is now a resurgence due to its association with AIDS and as well as great influx of infected immigrants.² In one series of 231 consecutive patients whose disease was evaluated prospectively using a rigorous protocol that included pericardiocentesis and biopsy, tuberculosis was diagnosed in 4% of patients and in 7% patients who developed cardiac tamponade.³

Clinical presentation - Tuberculous pericarditis usually presents with a pericardial effusion. Occasionally, patients may be identified with constrictive pericarditis, especially in endemic areas.⁴ Presenting symptoms include: cough (94%), dyspnea (88%), chest pain (76%), night sweats (58%) and the predominant physical findings were cardiomegaly (95%), pericardial friction rub (84%), fever (83%) and tachycardia (83%).⁵ Associated pulmonary tuberculosis is rare and is present in only 1 - 2% of patients.⁶

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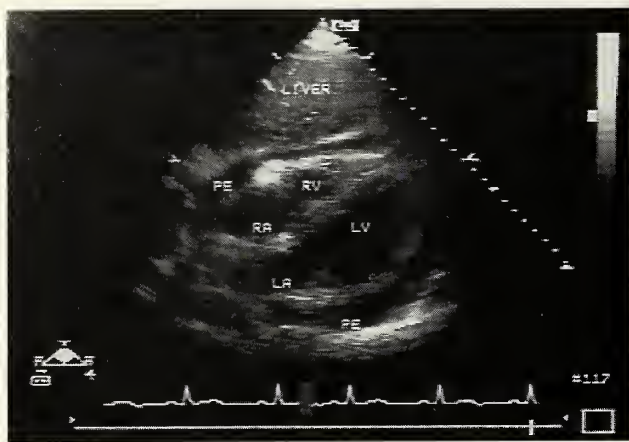


Figure 1: Sub-xiphoid two-dimensional echocardiogram demonstrating a moderate size pericardial effusion (PE) without compression of the cardiac chambers. Abbreviations: LA = left atrium, LV = left ventricle, PE = pericardial effusion, RA = right atrium, RV = right ventricle

Diagnosis - Tuberculous pericarditis should be suspected in patients with a protracted fever and cardiomegaly, with a history of positive tuberculin test or exposure to "open" cases of pulmonary tuberculosis. Immunocompromised patients or patients with HIV infection are also at particular risk. Isolation of the acid-fast bacillus from pericardial fluid or biopsy occurs in approximately 40% of patients. Pericardial fluid cultures are positive in about 60%. The yield may be enhanced if pericardial biopsy is also examined in the early effusive stage.⁷ A negative biopsy does not exclude the diagnosis, as the inflammation in the pericardium can be patchy. Newer techniques of pericardioscopy and optically guided biopsy are promising. A high level of adenosine deaminase (>40 units/liter) in the pericardial fluid, although not diagnostic, is supportive of the diagnosis of tuberculous pericarditis.⁸ The condition has also been presumptively diagnosed by polymerase chain reaction in pericardial biopsy specimen.⁹ However, despite negative results of all the above tests, in a significant proportion of patients a presumptive clinical diagnosis of tuberculosis pericarditis may be made if the clinical setting is appropriate, as in our case.

Treatment - With the availability of powerful anti-tuberculous drugs and effective combination regimens, mortality from tuberculous pericarditis has fallen from

80% to less than 50%. However its effectiveness in preventing development of constrictive pericarditis remains controversial. Drainage of pericardial fluid by creating a pericardial window is recommended. Pericardiectomy should be performed after four to six weeks of antituberculous drug therapy if patient develops large recurrent effusion or cardiac compression due to effusive-constrictive disease or early constrictive pericarditis.¹⁰ The use of corticosteroids has been advocated by some authorities to reduce pericardial inflammation and enhance resorption of pericardial effusion. A randomized trial in a small number of patients noted that adjuvant corticosteroids in active tuberculous constrictive pericarditis reduces mortality.¹¹

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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Influenza Update

Arkansas - As of mid March 1998, the Arkansas Department of Health (ADH) has obtained 35 positive influenza cultures from 19 counties. Those counties are Ashley, Baxter, Benton, Cleburne, Columbia, Conway, Craighead, Cross, Dallas, Grant, Hot Spring, Howard, Jefferson, Lafayette, Little River, Pope, Pulaski, Searcy and Yell Counties. All are type A (sub-type unknown). Influenza like illness has been reported in 60 counties so far this season. Influenza activity in Arkansas has decreased with activity currently classified as sporadic.

United States - Influenza activity peaked in the United States between mid-January and early February and has been decreasing since that period.

From late September through February 1998, the U.S. World Health Organization (WHO) Collaborating Laboratory has tested 60,737 specimens for respiratory viruses, and 9,740 (16%) were positive for influenza. 9,724 (99.8%) of these were type A and the remaining 16 were type B. 948 (99.6%) of the type A isolates that have been subtyped are A(H3N2). The remaining seven influenza A isolates were reported as A(H1N1).

For more information in influenza in Arkansas or to report outbreaks, please call the ADH Division of Communicable Disease and Immunization at (501)661-2784 during normal working hours.

Reported Cases of Selected Diseases in Arkansas Profile for January 1998

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

For a listing of reportable diseases in Arkansas, call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

Reportable Diseases	Total Reported Cases YTD 1998	Total Reported Cases YTD 1997	Total Reported Cases 1997*	Total Reported Cases YTD 1996	Total Reported Cases 1996
Campylobacteriosis	5	17	175	13	241
Giardiasis	10	16	220	12	182
Shigellosis	7	19	273	6	176
Salmonellosis	10	13	446	21	455
Hepatitis A	3	32	221	65	500
Hepatitis B	10	6	98	11	93
Hepatitis C	0	0	5	0	7
HIB	0	0	0	0	0
Meningococcal Infections	3	2	38	6	35
Viral Meningitis	1	2	25	4	38
Ehrlichiosis	0	0	22	0	7
Lyme Disease	0	2	26	0	27
Rocky Mountain Spotted Fever	1	0	29	0	22
Tularemia	0	0	24	1	24
Measles	0	0	0	0	0
Mumps	0	0	1	0	1
Gonorrhea	335	396	4388	442	5050
Syphilis	28	40	394	50	706
Legionellosis	0	0	1	0	1
Pertussis	5	2	60	0	14
Tuberculosis	6	0	200	3	225

NR Not reportable

* 1997 data (except STD) are provisional

To
those physicians who volunteer
through the Arkansas Health
Care Access Foundation.

Thank You!

As you can see from a sampling of
letters we have received, your
involvement in our program is
appreciated and in many
cases life-saving.

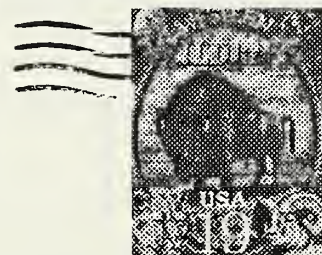
It has been three days since you
sent me to the doctor and I have
a ways to go to be 100%, but I can
breathe and walk across the room
now. I had given up hope almost,
and I remembered Arkansas Health
Care. The doctor gave me two of
the medicines I needed and the
pharmacy you sent me to filled the
antibiotics. Your doctor even
"chewed" me out for not coming in
two weeks previously. I'm starting
to feel good again. God bless you.

Western Wildlife

As Easterners moved West, pioneers
found animals as exotic as the landscape...
buffalo, prairie dogs, bears, beaver, bighorn
sheep, cougars, wolves and rattlesnakes.

The eagle became a national symbol.

I wanted to thank everyone
involved with this
program. We had no
one else to turn to
and we were in desperate
need of doctors and
medications.
Your program has
helped us through a very
difficult time.



Arkansas Health Care Access
Foundation

P.O. Box 56248

Little Rock AR

72715-6248

I would like to say thank you first
of all. Your program made it
possible for me to have a
mammogram when I had no
where else to turn. I did not
realize there was such a program.
...it is a much needed program.
Thanks again.

For more
information
on how
you can help,
call AHCAF at
(501) 221-3033
or (800) 950-8233



Arkansas Health Care
Access Foundation, Inc.

Due to your generous
assistance, I was able to
see an eye doctor and no
longer fear the loss of my
vision. Thank you all for
being there.

When I needed medical
attention, I was blessed with the
knowledge of your program.
There were kind and helpful
people to guide me.

THANK YOU FOR MAKING THE DIFFERENCE!



Arkansas HIV/AIDS Report

January 12, 1998

Summary

From 1983 through January 12 of this year, the cumulative number of HIV-positive persons reported is 3,919. Of that number, 2,369 meet AIDS case definition.

For the 30-day period ending January 12, 27 new cases of HIV and 16 new cases of AIDS were reported.

Of the 2,369 AIDS cases reported since 1983, 1,200 (51%) are living and 1,169 (49%) are deceased.

Statewide

Three (18%) of the HIV cases reported this month are female. For the 12-month period beginning February 1997 and ending January 1998, a total of 79 (25%) females were reported to be HIV-infected. Of these 79 females, 44 (56%) are black, 34 (43%) are white and one (1%) is Hispanic.

During the same time frame, 214 AIDS cases were reported, resulting in a statewide case rate of 9.1 per 100,000 population.

For more information

HIV/AIDS Statistics:
Mischelle Priebe, (501) 661-2323

HIV Services:
Claude Nesbit, (501) 661-2292

STD Statistics:
Mark Barnes, (501) 661-2137

Risk Factor Profile: Men Who Have Sex With Men

"Men who have sex with men" (MSM) is the predominant risk factor for all reported HIV and AIDS cases in Arkansas. From 1990 through 1997, 54% of all AIDS cases diagnosed and 40% of all HIV (not including AIDS) cases reported fell within this risk group.

MSM Cases: AIDS Only

From 1990 through 1997, a total of 2,101 AIDS cases were reported. Of that number, 1,145 were MSM cases. Of these, 270 (24%) were black, 860 (75%) were white, 11 (1%) were Hispanic and 4 (0.3%) were of other or unknown race.

MSM AIDS cases reported during this time period are concentrated in the 30 to 34 age category, with 27% of the total falling in this range. The 35 to 39 age group came in second, with 20% of

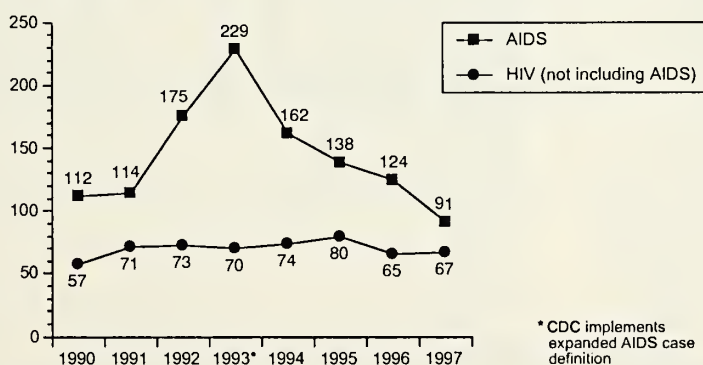
the total, followed by the 25 to 29 age group, which comprises 19% of MSM AIDS cases.

MSM Cases: HIV Only

From 1990 through 1997, a total of 1,387 HIV (not including AIDS) cases were reported. Of that number, 557 were MSM cases. Of these, 191 (34%) were black, 360 (65%) were white, 4 (0.7%) were Hispanic and 2 (0.4%) were of other or unknown race.

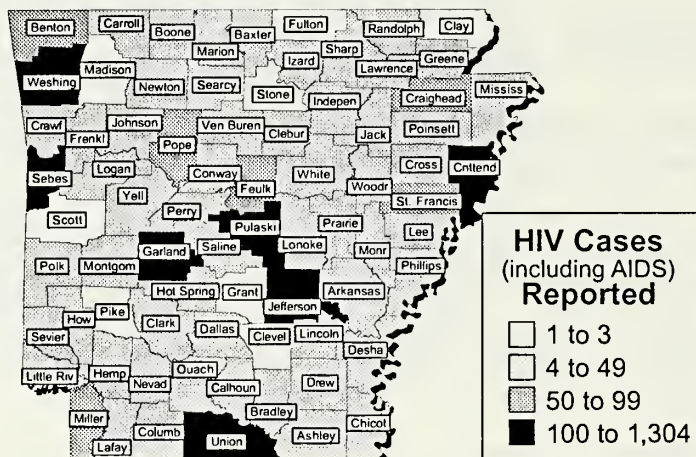
MSM HIV (not including AIDS) cases reported during this time period are highest in the 30 to 34 age category, with 24% of the total falling in this range. The 25 to 29 age group came in second, with 21%, followed by the 20 to 24 age group, which comprises 18% of MSM HIV (not including AIDS) cases.

Comparison of MSM HIV and AIDS cases, 1990-1997



HIV In Arkansas

Distribution Of Cases 1983 through January 12, 1998



Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-90	1991	1992	1993	1994	1995	1996	1997	1998	Total	%
SEX	Male	877	374	373	338	344	323	266	268	24	3,187	81
	Female	131	84	74	89	89	89	78	95	3	732	19
AGE	Under 5	12	8	5	3	5	2	1	10	0	46	1
	5-12	7	1	0	0	0	1	0	0	0	9	0
	13-19	29	18	25	11	21	11	21	19	0	155	4
	20-24	155	43	48	59	58	44	29	38	1	475	12
	25-29	249	100	99	106	80	73	60	54	2	823	21
	30-34	233	114	106	89	93	97	84	76	5	897	23
	35-39	161	86	63	75	69	80	70	67	8	679	17
	40-44	81	47	39	45	48	46	35	49	4	394	10
	45-49	41	19	25	16	27	22	18	33	6	207	5
	50-54	15	14	14	10	10	17	14	8	1	103	3
	55-59	13	3	12	6	6	6	6	6	0	58	1
	60-64	3	2	6	5	9	7	1	2	0	35	1
	65 and older	9	3	5	2	7	6	5	1	0	38	1
RACE	White	675	279	280	264	243	253	187	185	13	2,379	61
	Black	326	176	161	158	179	151	145	162	12	1,470	38
	Hispanic	2	3	4	1	7	3	6	5	2	33	1
	Other/Unknown	5	0	2	4	4	5	6	11	0	37	1
RISK	Male/Male Sex Injection Drug User (IDU)	558	242	246	231	210	175	143	118	8	1,931	49
	Male/Male Sex + IDU	149	90	71	62	71	57	30	43	2	575	15
	Heterosexual (Known Risk)	115	32	37	28	24	29	24	15	0	304	8
	Transfusion	106	64	65	96	98	69	71	61	1	631	16
	Perinatal	22	8	9	1	2	4	2	0	0	48	1
	Hemophiliac	12	8	5	3	5	3	1	9	0	46	1
	Undetermined	24	5	6	2	3	5	0	1	0	46	1
		22	9	8	4	20	70	73	116	16	338	9
	TOTAL	1,008	458	447	427	433	412	344	363	27	3,919	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

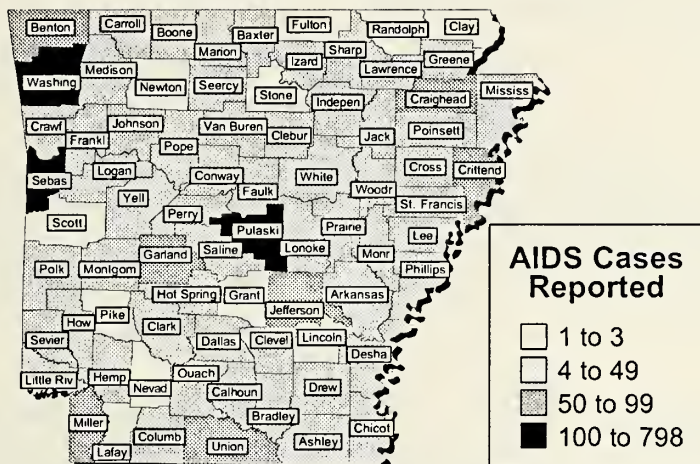
HIV Cases By County

County	1983-1/12/98	Feb 97-Jan 98
Arkansas	19	5
Ashley	19	0
Baxter	31	5
Benton	92	6
Boone	31	•
Bradley	15	•
Calhoun	8	•
Carroll	39	•
Chicot	19	•
Clark	21	8
Clay	•	0
Cleburne	16	4
Cleveland	•	0
Columbia	21	•
Conway	20	0
Craighead	74	12
Crawford	34	•
Crittenden	169	16
Cross	23	4
Dallas	8	0
Desha	20	•
Drew	13	•
Faulkner	61	0
Franklin	7	•
Fulton	•	0
Garland	145	14
Grant	•	0
Greene	22	0
Hempstead	24	5
Hot Spring	23	•
Howard	9	0
Independence	28	0
Izard	8	•
Jackson	10	•
Jefferson	166	8
Johnson	11	0
Lafayette	6	0
Lawrence	12	0
Lee	15	•
Lincoln	4	0
Little River	14	•
Logan	8	•
Lonoke	25	•
Madison	•	0
Marion	4	0
Miller	99	13
Mississippi	49	7
Monroe	16	•
Montgomery	7	•
Nevada	5	•
Newton	6	•
Ouachita	34	•
Perry	5	0
Phillips	42	8
Pike	•	0
Poinsett	16	•
Polk	12	0
Pope	57	•
Prairie	6	0
Pulaski	1,304	95
Randolph	5	•
St. Francis	81	9
Saline	26	4
Scott	•	0
Searcy	5	•
Sebastian	217	17
Sevier	10	0
Sharp	10	0
Stone	•	•
Union	126	11
Van Buren	5	0
Washington	291	18
White	38	4
Woodruff	4	0
Yell	13	•
Prisons	113	19

* Case numbers of 1-3 are not reported.

AIDS In Arkansas

Distribution Of Cases 1983 through January 12, 1998



Arkansas Department of Health HIV/AIDS Surveillance Program

Demographics		83-90	1991	1992	1993	1994	1995	1996	1997	1998	Total	%
SEX	Male	393	171	243	325	253	237	212	181	15	2,030	86
	Female	40	25	33	63	42	35	54	46	1	339	14
AGE	Under 5	8	6	2	2	1	2	0	8	0	29	1
	5-12	2	1	0	0	0	2	0	0	1	6	0
	13-19	4	3	2	4	3	1	3	2	0	22	1
	20-24	33	14	14	31	22	11	14	11	0	150	6
	25-29	99	42	65	78	45	46	46	28	0	449	19
	30-34	106	42	70	96	80	74	75	51	3	597	25
	35-39	85	37	55	77	52	49	54	57	6	472	20
	40-44	39	33	27	48	40	35	37	36	3	298	13
	45-49	26	6	22	26	22	17	21	20	3	163	7
	50-54	9	5	7	10	12	15	4	6	0	68	3
	55-59	9	4	8	8	5	6	7	4	0	51	2
RACE	60-64	4	1	2	5	10	5	1	1	0	29	1
	65 and older	9	2	2	3	3	9	4	3	0	35	1
	White	325	132	200	264	189	174	144	132	8	1,568	66
	Black	103	63	72	120	103	95	116	89	6	767	32
	Hispanic	1	1	3	3	2	3	4	3	2	22	1
RISK	Other/Unknown	4	0	1	1	1	0	2	3	0	12	1
	Male/Male Sex Injection Drug User (IDU)	254	114	175	229	162	138	124	91	6	1,293	55
	Male/Male Sex + IDU	44	29	41	68	47	47	28	41	1	346	15
	Heterosexual (Known Risk)	68	21	27	29	25	26	23	10	1	230	10
	Transfusion	25	11	20	52	41	35	58	37	0	279	12
	Perinatal	20	8	5	1	4	4	3	0	0	45	2
	Hemophiliac	8	6	2	2	1	3	0	8	1	31	1
	Undetermined	7	5	4	5	6	7	1	0	0	35	1
		7	2	2	2	9	12	29	40	7	110	5
	TOTAL	433	196	276	388	295	272	266	227	16	2,369	100

NOTE: County of residence may change from date of HIV test to date of AIDS diagnosis.

AIDS Cases By County

County	1983- 1/12/98	Feb 97- Jan 98	Case Rate Per 100,000
Arkansas	8	0	0.0
Ashley	15	0	0.0
Baxter	23	*	3.2
Benton	73	4	4.1
Boone	24	*	7.1
Bradley	12	*	17.0
Calhoun	7	*	17.2
Carroll	24	*	5.4
Chicot	11	*	12.7
Clark	11	*	9.3
Clay	*	0	0.0
Cleburne	10	*	15.5
Cleveland	4	0	0.0
Columbia	16	*	7.8
Conway	14	0	0.0
Craighead	50	6	8.7
Crawford	27	*	2.4
Crittenden	85	8	16.0
Cross	11	*	5.2
Dallas	6	*	10.4
Desha	11	*	17.9
Drew	7	0	0.0
Faulkner	49	*	3.3
Franklin	5	*	6.7
Fulton	*	*	10.0
Garland	89	8	10.9
Grant	*	0	0.0
Greene	12	0	0.0
Hempstead	12	*	4.6
Hot Spring	16	0	0.0
Howard	6	0	0.0
Independence	17	*	6.4
Izard	8	*	26.4
Jackson	4	0	0.0
Jefferson	93	6	7.0
Johnson	7	0	0.0
Lafayette	*	0	0.0
Lawrence	12	*	5.7
Lee	10	*	23.0
Lincoln	*	*	7.3
Little River	6	*	7.2
Logan	8	*	9.7
Lonoke	23	*	2.5
Madison	4	0	0.0
Marion	4	0	0.0
Miller	54	8	20.8
Mississippi	18	*	3.5
Monroe	7	*	8.8
Montgomery	5	0	0.0
Nevada	*	0	0.0
Newton	*	0	0.0
Ouachita	21	0	0.0
Perry	4	0	0.0
Phillips	21	*	6.9
Pike	*	0	0.0
Poinsett	8	0	0.0
Polk	9	0	0.0
Pope	28	*	4.4
Prairie	6	*	10.5
Pulaski	798	82	23.5
Randolph	*	*	6.0
St. Francis	36	*	10.5
Saline	19	*	4.7
Scott	*	0	0.0
Searcy	5	*	12.8
Sebastian	132	10	10.0
Sevier	8	0	0.0
Sharp	8	*	7.1
Stone	*	0	0.0
Union	72	5	10.7
Van Buren	4	0	0.0
Washington	175	10	8.8
White	24	6	11.0
Woodruff	4	0	0.0
Yell	10	*	11.3
Prisons	32	*	N/A

* Case numbers of 1-3 are not reported.

Arkansas Hospital Association & Arkansas Medical Society

Present

"Positioning Your Practice for Managed Care"

In association with AMA Solutions, Inc., a subsidiary of the American Medical Association

Educational grant has been provided by Bristol-Myers Squibb

Registration begins at 1:00 p.m.

May 5, 1998 • 1:30 p.m. - 4:30 p.m. • Holiday Inn Select • Little Rock, Arkansas

Managed care has a profound impact on physicians, medical practices, and office staff. This 3 hour program goes beyond the rhetoric to help participants identify specific ways to adapt to practice in a managed care environment. Physicians and staff will benefit from this detailed look at how to implement changes in staffing, business systems, billing, telephone protocol, and office technology. Additional topics include: automation, delegation of physician duties and patient satisfaction requirements.

Workshop Objectives

After participating in "Positioning Your Practice for Managed Care," physicians will be able to:

- Implement front office changes necessitated by managed care.
- Identify more efficient scheduling and billing systems.
- Define the importance of outcomes data.
- Create patient satisfaction surveys.
- Identify at least 3 appropriate models for physician affiliation.
- Respond strategically to managed care.

Discussion Topics

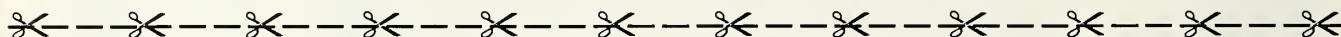
Operational Changes to the Business of Medical Practice
Information Systems/Outcomes Data
Delegation of Physician Duties
Patient and Referrer Satisfaction
Physician Affiliation Options

About the Instructor

Janice G. Cunningham, JD, is an attorney with Health Care Law Associates, PC, and a consultant with the Health Care Group, Inc. Prior to joining the Health Care Group, Ms. Cunningham served as Administrator for the Work Injury Network, Director for Bryn Mawr Rehabilitation Service Corporation, and Administrative Director of Brain Injury Services for the Robert Wood Johnson Rehabilitation Institute. A frequent author and lecturer on managed care and physician management, Ms. Cunningham received her BS and JD from Temple University in Philadelphia, PA.

CME Credit

The American Medical Association is accredited by the Accreditation Council for Continuing Education to sponsor continuing education for physicians. The American Medical Association designates this continuing education activity for three credit hours of Category 1 of the Physician's Recognition Award.



Registration Form

"Positioning Your Practice for Managed Care"

May 5, 1998 • 1:30 p.m. - 4:30 p.m. • Holiday Inn Select • Little Rock, Arkansas

Name _____ Cost: \$90.00 - Per Person, AMS Member
\$130.00 - Per Person, Non-Member

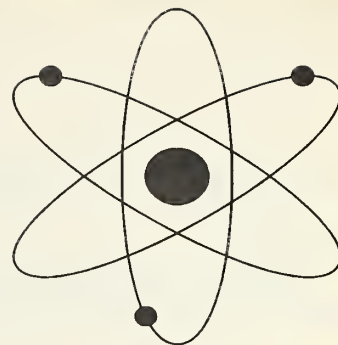
Clinic or Department _____

Address _____ Make checks payable and mail to:
Arkansas Medical Society
PO Box 55088

City, State, Zip _____ Little Rock, AR 72215-5088

Phone _____ Fax _____ Questions: 501-224-8967 or 1-800-542-1058

Radiological Case of the Month

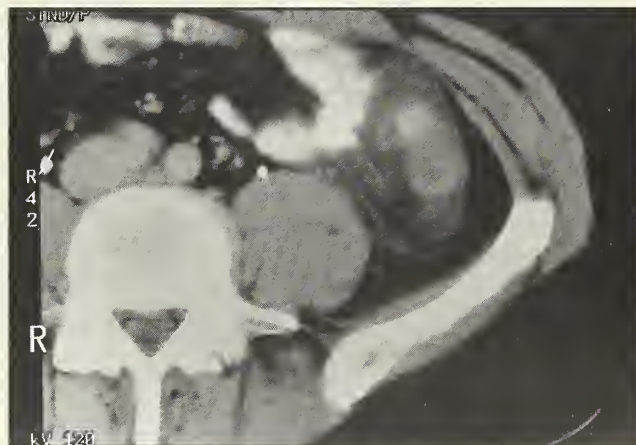
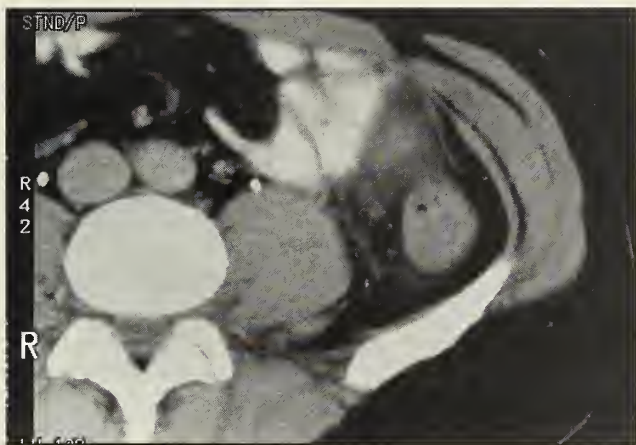


Author

Steven R. Nokes, M.D.

History:

A 54-year-old male presented with left lower quadrant pain and a slightly elevated white blood cell count. A CT scan of the abdomen was performed.



Figures 1 A & B: Axial CT scan of the pelvis

Epiploic Appendagitis

Diagnosis: Epiploic Appendagitis

Findings:

A small 1.5 cm mass is present contacting the anterior margin of the left colon which has a low-density center (fat) with an enhancing rim. The fat surrounding the mass and left colon is indistinct consistent with inflammation.

Discussion:

Epiploic appendices are small outpouches of peritoneum filled with fat and small vessels arising from the surface of the colon, extending from the cecum to the rectosigmoid junction.

Epiploic appendagitis occurs secondary to torsion, ischemia or inflammation causing pain which is usually mistaken for appendicitis or diverticulitis. Prior to CT these patients were often diagnosed at surgery, although the condition is self limited, usually resolving within one week.

CT reveals a fatty mass with an enhancing rim attached to the anterior or antero-lateral serosal aspect of an otherwise normal colon. The finding is more conspicuous with thin (5-mm) cuts obtained with helical scanners than with 10 mm cuts often acquired in the past.

References:

1. Rioux M, Langis P. Primary epiploic appendagitis: clinical, ultrasound and CT findings in 14 cases. *Radiology* 1994; 191:523-526.
2. Ghahremani GG, White EM, Hoff FL, Gore RM, Miller JW, Christ MI. Appendices epiloical of the colon: radiologic and pathologic features. *Radiographics* 1992; 12:59-77

Author: Steven R. Nokes, M.D., Radiology Consultants in Little Rock.

New Members

BERRYVILLE

Ricciardi, Joseph Michael, Orthopedic Surgery. Medical Education, Georgetown University School of Medicine, Washington, D.C., 1970. Internship/Residency, Nassau County Medical Center, East Meadow, New York, 1971/1975. Board certified.

BLYTHEVILLE

Dye, James David, Family Medicine. Medical Education, University of Missouri School of Medicine, Kansas City, 1987. Internship/Residency, St. Joseph Medical Center, University of Kansas, 1988/1990. Board certified.

CLINTON

Belizario, Marcelino Cucio, Internal Medicine. Medical Education, De La Salle University College of Medicine, Cavite, Philippines, 1991. Internship/Residency, Mercy Catholic Medical Center, Pennsylvania, 1995/1997. Board certified.

COTTER

Haisten, Diane A., Family Practice. Medical Education, Southeastern University of the Health Sciences College of Osteopathy, North Miami Beach, Florida, 1993. Internship/Residency, Mesa General Hospital Medical Center, 1994/1996. Board certified.

CROSSETT

Wilson, Alan Kirk, General Surgery. Medical Education, University of Texas Medical Branch, Galveston, 1985. Internship, Ohio Valley Medical Center, 1990. Residency, Grace Hospital/University of Texas Medical Branch, 1995.

HOPE

Perez, Eduardo, Pediatrics/Neonatology. Medical Education, Universidad Peruana Cayetano Heredia, Lima, Peru, 1988. Residency, State University of New York, Brooklyn, 1994. Board certified.

HOT SPRINGS

Mullins, Michael S., Family Practice. Medical Education, UAMS, 1994. Internship/Residency, UAMS, AHEC-SW, Texarkana, 1995/1997. Board pending.

JONESBORO

Johnson, Arlene L., Internal Medicine. Medical Education, UAMS, 1994. Internship/Residency, UAMS, 1995/1997. Board pending.

JONESBORO

Johnson, John Steven, Internal Medicine. Medical Education, UAMS, 1993. Internship/Residency, UAMS, 1994/1996.

LITTLE ROCK

Andreoli, Thomas E. Internal Medicine/Nephrol-

ogy. Medical Education, Georgetown University, Washington, D.C., 1960. Internship/Residency, Duke University School of Medicine, Durham, North Carolina, 1961/1965. Board certified.

Horn, Thomas D., Dermatology. Medical Education,, University of Virginia School of Medicine, Charlottesville, 1982. Internship, University of Virginia, 1983. Residency, University of Maryland and Johns Hopkins University, 1987/1989. Board certified.

FORT SMITH

Eckes, Anne Michelle, Pediatrics. Medical Education, University of Arizona College of Medicine, Tucson, 1991. Internship/Residency/Fellowship, University of Utah, 1992/1994/1995. Board certified.

Gold, Adam C., Radiology. Medical Education, University of Texas Medical School, San Antonio, 1992. Residency, University of Texas-Southwestern, Dallas, 1996. Board certified.

MENA

Beckel, Ron W., Pediatrics. Medical Education, UAMS, 1993. Internship/Residency, Arkansas Children's Hospital, 1994/1996. Board certified.

MONTICELLO

Azhar, Muhammad Faheem, Internal Medicine. Medical Education, Allama Iqbal Medical College, University of Punjab, Lahore, Pakistan, 1987. Internship/Residency, Texas Tech University Health Science Center, Amarillo, 1995/1997. Board certified.

PINE BLUFF

Bigongiari, Lawrence Roy, Diagnostic Radiology. Medical Education, University of Illinois College of Medicine, Chicago, 1969. Internship, University of Southern California Medical Center, Los Angeles, 1970. Residency, Rush-Presbyterian St. Luke's Hospital, Chicago, 1974. Board certified.

ROGERS

Smith, Robert B., Emergency Medicine. Medical Education, Ross University School of Medicine, New York, 1993. Internship/ Still Regional Medical Center, Missouri, 1994. Residency, University of Kansas Wesley Family Medicine, 1996. Fellowship, University of Tennessee. Board certified.

RESIDENTS

Hadjiev, Christo Alex, Family Practice. Medical Education, Bulgarian Medical Academy, Bulgaria, 1985. Internship/Residency, UAMS.

Haran, Panchapakesan P., Anesthesiology. Medical Education, Gandhi Medical College, India, 1981. Internship/Residency, UAMS.

Orgler, Raymond J., Jr., Surgery. Medical Education, University of Mississippi School of Medicine, Jackson, 1997. Residency, UAMS.

In Memoriam

William E. Jennings, M.D.

Dr. William E. Jennings of Rogers died Sunday, February 15, 1998. He was 78. He is survived by his wife, Bonnie Hall Sudberry Jennings, to whom he was married 22 years; his stepmother, Euneva Jennings of Joplin, Mo.; one brother, Paul Jennings of McPherson, Kan.; two sisters, Ruth Jennings Jones of Joplin and Virginia Jennings Love of Phoenix, Ariz.; two sons and daughters-in-law, Judge John Jennings and Rosemary of Rogers and Dr. W.C. Jennings and Hilary of Tulsa, Okla.; one daughter and son-in-law, Mary Jennings Hight and Robert of Dallas, Texas; one stepson and step-daughter-in-law, B.P. Sudberry III and Trudy of Muskogee, Okla.; two stepdaughters and stepsons-in-law, Sidney Sudberry Greathouse and Les of Dallas and Ginny Sudberry Brandecker and Will of Bentonville; 16 grandchildren; and one great-grandson.



Things To Come

April 22-26, 1998

Critical Care Medicine 1998 - 12th Annual Review and Update. Crystal Gateway Marriott, Washington, DC. Endorsed by the Society of Critical Care Medicine and announced by the Center for Bio-Medical Communication, Inc. For more information, call 201-385-8080.

April 29 - May 2, 1998

International Conference on Physician Health. Victoria, British Columbia, Canada. Sponsored by the American Medical Association and the Canadian Medical Association. For more information, call 312-464-5073.

May 1 - 2, 1998

ARKANSAS LOCATION

The Arkansas Society of Hand Surgeons Annual Meeting. Gaston's Resort in Lakeview, Arkansas. For more information, call 800-880-4088.

May 13 - 16, 1998

Collaborating for Access...Capitalizing on Success - the National Rural Health Association's 21st Annual National Conference. Orlando, Florida. For more information, call 816-756-3140.

May 16 1998

Excellence in Diabetes Management. The Ritz-Carlton Hotel, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

June 12 - 14, 1998

ARKANSAS LOCATION

Alumni Weekend '98. Little Rock, Arkansas. Sponsored by the Arkansas Caduceus Club. For all University of Arkansas Medical School graduates in the classes of 1933, '38, '43, '48, '53, '58, '63, '68, '73, '78, '83, '88. For more information, call 501-686-6684.

June 23, 1998 - July 5, 1998

American Medicine in a Critical Perspective - A 12-Day Study Cruise on ms Rotterdam VI. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored jointly by the Florida Medical Association and Continuing Education, Inc. For more information, call 1-800-926-3775.

June 26 - 28, 1998

12th Annual Frontiers in Endourology - Retrograde Intrarenal Surgery, Ureteroscopy, Stents and Other Minimally Invasive Techniques: Nonincisional Access to the Entire Urinary Tract. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

July 17 - 18, 1998

Clinical Allergy for the Practicing Physician. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

October 1 - 3, 1998

Contemporary Cardiothoracic Surgery. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

October 15 - 16, 1998

24th Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

Arkansas Foundation for Medical Care 1998 Quarterly Video Conferences:

Video conferences, Third Thursday of the month, once a quarter. Time: 12 noon to 1:30 p.m. Dates: May 14, August 20 and November 19. Location: UAMS education building/AHECs and Rural Hospital Affiliates. For more information, contact Patricia Williams or Cindy Jones at 501-649-8501, ext. 203.



The ONLY Guide to Arkansas Health Law

The Arkansas Medical Society's *Physician's Legal Guide* represents the first ever attempt to compile the multitude of state and federal laws affecting the practice of medicine in Arkansas. The guide will quickly become a valuable resource for physicians, clinic and hospital administrators, office staff, attorneys, regulators, and many others. As an example, consider the fact that each year the Arkansas Medical Society receives hundreds of calls about medical records. Two of the most common questions asked are... *How long do physicians have to keep medical records?*... and...*Can I get copies of "my" medical record?* Seven pages of the guide are devoted to this one subject.

Other Topics Include:

- Patient Abandonment
- Medical Board Regulations
- AIDS
- Antitrust Law
- Debt Collections
- Communicable Diseases
- Emergency Medical Care
- Fraud and Abuse
- Insurance
- Organ Donations
- Peer Review and Reporting
- Tort Liability
- Workers' Compensation



Physician's Legal Guide Order Form

NAME: _____

CLINIC/ORGANIZATION: _____

PHONE: _____

SHIPPING ADDRESS: _____

CITY: _____

STATE & ZIP: _____

MAKE CHECKS PAYABLE & MAIL TO:

ARKANSAS MEDICAL SOCIETY
PO BOX 55088
LITTLE ROCK, AR 72215-5088
501-224-8967 or 1-800-542-1058

PRICING INFORMATION	
List Price	\$95.00
AMS Member Price (30% discount)	\$65.00
QUANTITY ORDERED	TOTAL
_____ # of Book(s)	\$
SHIPPING & HANDLING (Add \$5.00 per book.)	\$
TOTAL ENCLOSED (Payment <u>must</u> be received with order form.)	\$

Keeping Up

April 18-19, 1998

Nuclear Medicine Update - Lake Hamilton Resort, Hot Springs. Sponsored by UAMS Department of Radiology and the Arkansas Chapter of the American College of Radiology. For more information, call (501) 661-7962.

April 24, 1998

Diabetic Retinopathy - National Park Medical Center, Ozark/Quapaw Room, Hot Springs. Sponsored by UAMS. For more information, call (501) 620-1420.

April 25, 1998

Primary Care Cardiology Update '98 - Holiday Inn - Springdale. Sponsored by Washington Regional Medical Center. For more information, call (501) 442-1823.

April 30, 1998

Pediatric Infectious Diseases - North Arkansas Medical Center, Harrison. Sponsored by North Arkansas Medical Center. For more information, call (870) 365-2369.

May 2-4, 1998

Spring Sleep Seminar 1998 - Arlington Resort Hotel and Spa, Hot Springs. Sponsored by Washington Regional Medical Center, Fayetteville. For more information contact Bill Rivers, RPSGT at (501) 442-1272.

May 12, 1998

Sun Exposure & Skin Damage - North Arkansas Medical Center, Harrison. Sponsored by North Arkansas Medical Center. For more information, call (870) 365-2369.

May 16, 1998

W.W. Stead Chest Symposium - Holiday Inn Select, Little Rock. Sponsored by UAMS College of Medicine Department of Pulmonary and Critical Care Medicine and the Arkansas Thoracic Society. For more information, call (501) 661-7962.

May 21, 1998

The Diamond Conference - Arkansas Children's Hospital, Chairman's Hall, Little Rock. Sponsored by UAMS College of Medicine. For more information, call (501) 661-7962.

May 22, 1998

18th Annual Resident & Alumni Day - Jones Eye Institute, UAMS, Little Rock. Sponsored by UAMS College of Medicine. For more information, call (501) 661-7962.

June 5 - 7, 1998

20th Annual Family Practice Intensive Review Course - UAMS Education II and III Buildings. Sponsored by UAMS Department of Family and Community Medicine and the Office of Continuing Medical Education. For more information, call (501) 661-7962.

Recurring Education Programs

The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

FAYETTEVILLE-VA MEDICAL CENTER

Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided

Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided

Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.

General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.

Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center

Gastroenterology/Surgery Journal Club, dates vary, AR Gastroenterology Memorial Medical Plaza, Suite 3A. Call 501- 202-2673 or 202-3888 for more information.

G.I. Problems Conference, 3rd Tuesday every other month beginning in April, 6:30 to 8:00 p.m., Shuffield Auditorium

Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.

Multidisciplinary Trauma Conference, 3rd Thursday each month, 5:00 to 6:00 p.m., location varies, call 501-202-2673 or 202-1406.

Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.

Sleep Disorders Case Conference, Twice monthly, 12:00 noon. Call BMC ext. 2673 for dates and location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building

Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom
Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.
Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas

Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
 Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
 Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
 Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas
 Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
 Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas
 Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
 Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
 Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
 VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
 AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
 AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
 Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
 Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
 Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
 Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
 Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
 Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
 Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
 Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
 Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
 Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
 Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
 Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
 Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
 Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
 Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
 Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
 Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
 Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
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 Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
 Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
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 White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

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Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
 Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
 FP Journal Club, 2nd Monday, 12:00 noon, Jefferson Regional Medical Center
 Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
 Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
 Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
 Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
 Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
 Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Locations vary. Dinner meeting.
 Tumor Conference, 1st Wednesday & 3rd Friday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
 Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
 Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
 Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
 Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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On Mentors, Epitaphs & Patients

What it takes to become a beloved physician

Jerry Byrum, M.D.*

It is interesting how a simple question can profoundly affect you. Last summer, as I sat in a conference center, the leader of a seminar passed out a sheet of paper with a drawing of a tombstone printed on it. He asked us to write our names on the tombstone, the date of our birth and then the date of our death if we were to live eighty years. Because I turn forty this year, there was quite a bit of symmetry to those numbers. The leader then asked us to write two other things on our "tombstone." The first was to write the epitaph that would be written by our family if we were to die that day. The last thing was to write the epitaph that we would like to have written about us. This was such a simple exercise and yet it really caused me to think about my life. It is interesting that we use a little dash between two numbers and a few simple words to summarize one's entire life. It is also interesting how much those few words can say about a person.

As I thought about it, one of the few things that I wanted to be written on my tombstone was "beloved physician." I found it very interesting that I didn't particularly want it to read "competent physician" or "rich physician" or "busy physician" or "important physician" or any other adjective. I found that I just wanted it to read, "beloved physician."

I then contemplated on what it meant to be a "beloved physician." I realized that a lot went into being a "beloved physician." I then remembered some of my mentors who had invested in my life as a physician. I thought about their contributions, how they had taught me so many things and how much I appreciated them.

First, there was Dr. Roger Bost, a distinguished pediatrician who after practicing pediatrics for years, later served as AHEC director. Before retiring from medicine, he then spent several years as a professor of pediatrics at Arkansas Children's Hospital. This interval of time happened to be during my medical school

and pediatric residency years. Dr. Bost had a way of carefully listening to a patient's or parent's concerns, coming to a conclusion and then clearly and very directly explaining what needed to be worried about and what did not. Dr. Bost taught that you should treat the patient in the way that is best for them, not treating that patient based on their expectations nor on the expectations of the parents. This approach may take a little extra time as an understanding of one's condition comes with explanation.

Hundreds of times each year, I explain to parents why antibiotics do not help viral upper respiratory infections and how antibiotics may actually do more harm than good for these conditions. There are many other examples of times when it is so easy to knuckle under to the wishes of demanding patients, when those wishes may actually do them harm. Dr. Bost helped me learn how important clear, direct communication and sound medical decision making are to a doctor. You see, a "beloved physician" does what is in the best interests of his patients, even if those patients don't know what is best right then. Over time, however, patients will realize if their doctor cares enough to do what is best for them.

My next lesson came in a very different environment. I will never forget my first overnight call in the UAMS intensive care nursery as a second year pediatric resident. That particular day had been very busy with the births of several extremely ill neonates. Born that day were infants with meconium aspiration syndrome, sepsis and prematurity with Hyaline Membrane Disease. There were about eight patients in the Intensive Care Nursery on mechanical ventilation in various stages of these three diseases. The patients ranged from 600 grams to 4,000 grams. This was a daunting task to manage these very ill neonates overnight on one's first night of Intensive Care Nursery call.

On this particular evening, Dr. Bob Arrington, the chief of neonatology at UAMS, was the staff neonatologist on call. As arterial blood gas determinations

* Dr. Byrum, a member of the editorial board for *The Journal of the Arkansas Medical Society*, is a pediatrician with All For Kids Pediatric Clinic in Little Rock.

were made on these ill newborns, ventilator changes were needed as the disease processes played out on each individual child. It was my job to direct those changes. Because of inexperience at ventilator management of premature lung disease, sepsis and meconium aspiration, I didn't realize that different conditions and different sized babies would demand different arterial blood gas tolerances and hence different ventilator management plans. After about two or three calls to Dr. Arrington, with what I am sure were perplexing questions, Dr. Arrington came unannounced to the UAMS nursery. Instead of managing the patients himself and then getting sleep, he spent three hours with a young resident at 2 am explaining the differences between ventilating a 600 gram baby with premature lung disease and a 4,000 gram infant of a diabetic mother with meconium aspiration syndrome. I learned more in those three hours than any other three hours in my life. The knowledge and skill that I received during this time was not just about neonatology. I learned the importance of knowledge and skill to a physician in a general sense. To be a "beloved physician" requires that we learn and that we are technically good at what we do. It means that we gain and maintain technical competence and stay up to date. Otherwise, even with the best of intentions, we do harm to our patients.

Another lesson learned during my training in pediatrics came at the hands of the chairman of pediatrics at Arkansas Children's Hospital, Dr. Robert Fiser. Dr. Fiser would usually attend "morning report" each morning. During this time, the workups of patients who were admitted to the hospital in the previous 24 hours were presented to him, a group of staff professors and of course, our peers. This was a great teaching time. Cases were presented and there was discussion about the patient's condition, differential diagnoses and treatment plans.

It did not take long to learn that one needed to be fully prepared for this moment with a spirit of excellence. I learned to invest enough time in each of my case presentations so that I knew about the condition, the differential diagnosis and the currently accepted treatment. Not preparing in this way was a sure way to disappoint our chairman, which no one wanted to do (for several good reasons which we will not go into here). Even now, it is interesting how fruitful this same approach is in treating my own patients. During this time of training, I learned where and how to find the facts fast and to do it with a spirit of excellence. I learned not to take shortcuts in managing my patients, but to give excellence to each and every patient each time, no matter how tired I am. A "beloved physician" treats his patients with this spirit of excellence.

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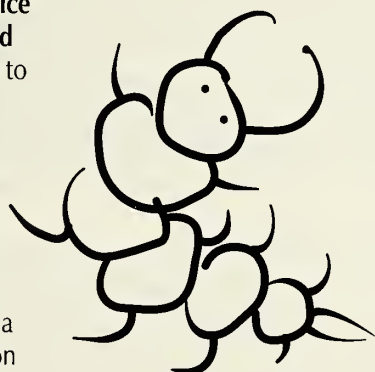
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It was with these lessons of training, all well taught and well received, that I began my own practice in pediatrics. Shortly after entering practice, however, I caught my first glimpse of another aspect of practice that I had not been taught up to this point. This first lesson on the subject came from one of our close family friends who has four children. As I entered pediatric practice, she made a comment that she did not want to hurt my feelings, but that she would not be using me as the pediatrician for her children. I had never expected her to change from her pediatrician because she had an established relationship. I understood that clearly. But then came the lesson, "You see," she said, "this doctor kisses my child on the head." At first, that comment took me a bit by surprise. What did she mean by it? For a while, I dismissed the thought. However, with time, I began to understand what she meant. This last attribute involved in being a "beloved physician" is what I want to discuss now.

Not long after I entered practice, a young woman was run over by a car in a hospital parking lot. She was pregnant with her second child. For some reason, the family informed us of the accident shortly after it happened. Because I was her little girl's pediatrician, I decided to check on this woman in the hospital a couple of hours after the accident. As I walked into the room, I could hardly recognize her because of the trauma. However, she was alert and immediately recognized me. With a look that I will never forget and words barely audible but extremely intense, she said, "pray for me, pray for me." And so, the best way I could, as the general surgeon was placing a chest tube, I prayed out loud for her and this unborn child as I held her hand. A few hours later, I was the one who was handed a 30-week premature baby at emergency C-section. Miraculously, for 30 minutes after birth, the baby had no sign of respiratory distress, and this mother was able to have her baby next to her to experience the joy of the birth of her son, despite her pain. I'll never forget that experience. Neither will she. I learned something that day, a "beloved physician" strives to meet the needs of his patients. Somehow, after this experience, it seemed that my practice really began to grow. It was interesting that many of my patients seemed to know this woman and each other. I wonder why.

With time, in our clinic, we began to implement several simple strategies to connect with our patients. We began this task nine years ago by compiling and reading the best pediatric patient handbooks from across the country and then writing our own version with the best ideas from each one. In our handbook, which is in its third edition, we communicate with our patients about our practice philosophy, parenting skills, medical advice for common pediatric illnesses, medication dosages, practice policies and procedures

and other helpful insights. We find that our patients want to hear from us, their own doctors, and not necessarily from some pre-printed material. When our patients and parents read our handbook, it is like they are speaking with us. This communication tool is of great importance to our practice; educating our patients, preventing unnecessary office visits and diminishing our telephone calls.

Over time we implemented good charting techniques in our office. We designed a form which makes it easy to keep track of our patients history, medical problems, drug allergies, screening tests, important social history and other information. I found that not only was it gratifying for us and the patient to have this information organized and immediately accessible, but that it was simply good medicine. Now, when I go into a room, not only do I know the name of the patient, but also the names of both parents and all siblings. In addition, I also know their medical problems, drug allergies, immunization status and what the parents do for a living. All this information is gained from a five second glance at an organized chart. As a nice finishing touch to a good charting job, interpersonal information such as shared acquaintances and interests are jotted down. However, what I didn't expect when we began writing these things down, was that I would begin to remember them without the chart. You cannot imagine what it does to a doctor, patient relationship to be able to remember a simple thing such as a patient's first name in an encounter at Wal-Mart.

I find that patients want their doctors to know about them without the doctor having to ask the same questions repeatedly. It is inexcusable to a patient to be asked the same question over and over again during different office visits. I know of a minister from a small Arkansas town who has been asked the name of his profession on each of his last five visits with his doctor. It is no wonder that this man is seeking a new physician. Obviously, his present physician is not even interested enough in him to write down what the man does for a living.

As a physician puts his or her patients first, there are other things that begin to happen in the practice. One of those things is pain control for patients. A "beloved physician" is good at doing procedures and managing illnesses with as little pain as possible. Regional anesthesia, nerve blocks, TAC (Tetracaine, adrenaline, cocaine solution), Versed, EMLA cream, and morphine are words that are in his or her vocabulary. Of course, the physician is skilled at their use and does not let a patient abuse these drugs.

Tears are welcome in the office of a "beloved physician." Emotion from patients is a natural part of what we do. We should be comfortable with emotion from our patients. When tears are not welcome, it signals a

problem with the doctor, patient relationship. A patient's comfort in the office is given priority. A "beloved physician's" office is designed to provide comfort and privacy. A patient's dignity is never trampled by the routineness that we feel in doing genital exams or our hectic schedules. As much as possible, we should respect the value of our patient's time and try to minimize their waiting times. We should be patient as we examine people. I find that if I have patience with a child during an examination, explaining what I am about to do beforehand and then retreating if the child feels that I have advanced too fast, that even very small infants will accept my examination without crying. Over time, the practice is filled with children who actually enjoy coming to the doctor. Examinations take less time because we are not trying to examine a screaming child. The "beloved physician" should be concerned about not overburdening his or her patients financially. "How much will this cost my patient," is a question we should ask often. Sample medications are sought and given in situations where they will do the most good, such as with self pay patients. There are some situations in which we need to write "no charge" across the top of superbill. Attention to such details endears a physician to people.

This past week I took a chart out of the door rack and noticed that it was the chart of a two-year-old child whose family had moved to Dallas, Texas, six months previously. During her last visit, I had wished the mother well and told her to send me Christmas cards of her child as she grew up. On this visit, I thought that they were probably in Little Rock to see relatives and that the child had become ill. I was mistaken. They had driven from Dallas to see me. The mother explained that her child had experienced two seizures associated with fever. They were brief, but very frightening to her. The doctors in Dallas had done a thorough work up. The child had a MRI of the head along with an electroencephalogram (EEG). The pediatrician and pediatric neurologist had concurred that

these were harmless febrile seizures and that no treatment was needed at present. They told her treatment would be needed only if more seizures occurred without the presence of fever and that the treatment would be with an anticonvulsant which might lower her child's I.Q. slightly. The mother believed that the information given to her was all correct.

What was fascinating to me about her visit, was that she wanted to hear me tell her the same information, but with one difference. She wanted the information filtered through a doctor that cared about her and her child. You know, sometimes, the same information sounds very different when it is filtered this way. No, for you melancholys, this lady did not have a codependent type personality. She is rock stable. However, in a time that was very frightening for her, she needed something that she did not get in Dallas. She needed for her physician to care.

For me, my style is that usually I will not be kissing my patients on the head. That is not my personality. However, I do try to give something of myself to every patient that I care for. You see, being a "beloved physician" is a choice we make every day, every time we go into a patient's room. That choice is about putting our patients first and doing what is best for them even if they do not know it at the time. It is about acquiring knowledge and technical expertise, because these things help our patients. It is about being up to date and giving our patients top notch medical care with a spirit of excellence every time we see them. But more than anything, being a "beloved physician" is about caring. It is about demonstrating that care in a genuine way that matches who we are. It is about meeting our patients' needs. When we invest in the lives of others, with that investment comes rewards. Some of those rewards are the reciprocal care and concern of our patients. When we have patients who we as physicians really care about, then and only then, will we begin to know what it is like to be a "beloved physician."

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Medicine in the News

Health Care Access Foundation

As of April 1, 1998, the Arkansas Health Care Access Foundation has provided free medical service to 13,765 medically indigent persons, received 26,358 applications and enrolled 51,855 persons. This program has 1,894 volunteer health care professionals including medical doctors, dentists, hospitals, home health agencies and pharmacists. These providers have rendered free treatment in 69 of the 75 counties.

AMAP Agreement with AMA

*On Sunday, March 8, the American Medical Association announced an agreement with the Medical Society of the District of Columbia (MSDC) that would bring the American Medical Accreditation Program (AMAP) to the nation's capital. MSDC becomes the first medical organization to enter a sponsorship agreement with AMAP. The AMA expects to introduce AMAP to the District of Columbia in June 1998.

Information provided by the AMA Federation Communicator's Weekly newsletter, dated the Week of 3/1/98.

National Market Trends

*The prompt payment issue is heating up in Texas, where the Texas Department of Insurance (TDI) has weighed in on behalf of physicians and other providers, issuing a warning that if health plans do not provide prompt payment as required by law they will be subject to disciplinary action. Under Texas law, plans must pay providers for covered services within 45 days and must pay physicians their capitated payment fees within 60 days after the enrollee has selected a primary care physicians. A TDI investigation found significant violation of the provisions, and indicated that penalties for non-compliance can range from a small fine to losing the insurance license. (*Houston Business Journal*, February 2, 1998).

*Blue Cross and Blue Shield of Massachusetts, which has been experiencing financial troubles, is negotiating with FPA Medical Management, a California-based physician practice management company, to run its health plans. Apparently, FPA is seeking to negotiate a 10-year deal which would give them full authority to negotiate physician contracts and set rules for managed care plans. FPA's aggressive cost-cutting practices have brought criticisms in other markets and are raising concerns among Massachusetts providers. (*Boston Herald*, February 9, 1998).

*Kaiser Permanente, one of the country's largest not-for-profit HMOs, posted a record \$270 million loss for 1997, even though its membership grew 19% to almost 9 million. Some observers note that the financial difficulties being experienced by Kaiser, as well as by large for-profit systems like Oxford Health and

PacifiCare, are directly related to a financial strategy of trying to increase market share. While they are succeeding in part, most employees choose more flexible plans that result in higher medical costs on the part of HMOs. In addition, many HMOs are underinvesting in management systems, and this creates problems when enrollment exceeds computer capacity. (*Wall Street Journal*, February 17, 1998).

Information provided by the AMA Federation Communicator's Weekly newsletter, dated the Week of 3/1/98.

\$1,000 Available for Historical Research

The History of Medicine Associates, an organization created to stimulate interest in the history of the health sciences in Arkansas and to promote the collection of the UAMS Library's Historical Research Center, is offering a \$1,000 Research Award to an individual interested in preparing a paper on any aspect of Arkansas health sciences.

Individuals should make use of the resources in the UAMS Historical Research Center collection when preparing the paper. The Award may be used for travel, housing, resource materials, and research or secretarial assistance.

There is no required application form. Applicants should send a proposal (summary) of the paper's topic, a proposed budget, and an anticipated completion date to the address given below. Deadline for applications is May 31, 1998. The winner will be announced in June. Send proposals to Edwina Walls Mann, Treasurer, History of Medicine Associates, UAMS Library, Slot 586, 4301 W. Markham St., Little Rock, AR 72205-7199. If you have questions, call Ms. Walls at 686-6733 or e-mail at MannEdwinaWalls@exchange.uams.edu.

Information provided by UAMS Library news release.

Mental Health Facts

May is National Mental Health Month

Listed below and on the next page are some mental health facts and a mental health checklist, which you may wish to share with your patients, peers, family or friends.

Mental illnesses are real, common and treatable:

*Using well established, formal diagnostic criteria for major mental disorders (DSM-IV), mental health clinicians agree on a given diagnosis 80 percent of the time. This figure compares favorably with expert "inter-rater" agreement on clinical diagnoses in other areas of medicine (National Institute of Mental Health (NIMH), 1993).

*More than 51 million American adults and children experience a diagnosable mental or emotional disorder in a single year (NIMH and Center for Mental Health Services (CMHS), 1994).

*The full spectrum of mental disorders affects 22

percent of the adult population in a given year. This figure refers to all mental disorders, and is comparable to rates for "physical disorders" when similarly broadly defined (e.g., respiratory disorders affect 50 percent of adults and cardiovascular disease 20 percent) (NIMH, 1993).

You, your family, patients and peers are at risk:

*During the course of any given year, 40 million American adults are affected by one or more mental disorders; 5.5 million are disabled by a severe mental illness (NIMH, 1990).

*An estimated 19.9 million Americans (8.8 percent of the population) experience phobias. About 9.1 million live with major depression; 3.9 million have obsessive compulsive disorder; 2.4 million have panic disorder; 2 million have schizophrenia; and 2 million have bipolar disorder (manic depression) (NMHA, 1993; CMHS, 1994).

*About one in five children suffer from diagnosable mental, emotional or behavioral disorders. Approximately four million children and adolescents, 9-17 years old, suffer from a serious emotional disturbance (SED). Children living in poverty appear to be at a higher risk for developing SED (CMES, 1997).

*Less than one-third of children under the age of 18 with a serious emotional disturbance receive mental health services. Services received are often inadequate (Children's Defense Fund; CMHS; 1994).

*At least two-thirds of elderly nursing home residents have been diagnosed with a mental disorder such as major depression (NIMH, 1990).

Information provided by the National Mental Health Association.

New Resource Available for Children's Health Data: Millions of American Children Still Uninsured and Face Barriers to Care

The Agency for Health Care Policy and Research (AHCPR) recently released a new sourcebook on data about children's health. The data in *Children's Health 1996* highlights findings from AHCPR's 1996 Medical Expenditure Panel Survey (MEPS).

"This publication allows policymakers, advocacy

Mental Health Checklist

Stress is a natural part of everyday life. Left unchecked, however, stress can cause physical, emotional and behavioral disorders which can affect your health, vitality and peace-of-mind, as well as personal and professional relationships. Everyone handles stress differently, some better than others. If you think you have too much stress in your life, it may be helpful to talk with a doctor, member of the clergy or other caring professional. Because reactions to stress can be a factor in depression, anxiety and other mental and emotional disorders, they may suggest that you consult with a psychiatrist, psychologist, social worker or other qualified counselor.

Here is a checklist of negative reactions to stress and tension:

1. Do minor problems and disappointments upset you excessively?
2. Do the small pleasures of life fail to satisfy you?
3. Are you unable to stop thinking of your worries?
4. Do you feel inadequate or suffer from self-doubt?
5. Are you constantly tired?
6. Do you experience flashes of anger over a minor problem?
7. Have you noticed a change in sleeping or eating patterns?
8. Do you suffer from chronic pain, headaches or backaches?

If you answered "yes" to most of these questions, consider the following suggestions for reducing or controlling stress:

1. Be realistic. If you feel overwhelmed by some activities, learn to say NO!
2. Shed the "superman/woman" urge. No one is perfect, so don't expect perfection from yourself or others.
3. Meditate for ten to twenty minutes.
4. Visualize how you can manage a stressful situation more successfully.
5. Take one thing at a time. Prioritize your tasks and tackle each one separately.
6. Take on a hobby that will give you a break from your worries.
7. Live a healthy lifestyle with good nutrition, adequate rest, regular exercise, limited caffeine and alcohol, and balanced work and play.
8. Share your feelings with family and friends. Don't try to cope alone.
9. Give in occasionally. Be flexible.
10. Go easy with criticism. You may be expecting too much.

For more information, contact the
National Mental Health Association at 800-969-NMHA.
Information provided by the National Mental Health Association.

groups or anyone with an interest in children's health to understand quickly many important aspects of our children's health data," said AHCPR Administrator John M. Eisenberg, M.D. Dr. Eisenberg said that chartbooks highlighting other aspects of MEPS data are planned. The chartbook is split into three sections which provide information on children's health status, access to care and health insurance status. The

information is presented in an uncomplicated way, using a question and answer style and many pie charts and bar graphs to communicate current data on children's health.

Significant findings on children's health included in the chartbook are:

- *In 1996, nearly 11 million children were uninsured.

- *About 90% of all uninsured children lived in households with at least one working adult.

- *52.8% of children insured through Medicaid are living in households with at least one working adult.

- *At least 3.3 million American children under age 13, and more than 1 million age 13 and over, are eligible for Medicaid but not enrolled.

- *Of families who said they did not receive needed health care, 60% said they did not get care because they could not afford it.

- *Children aged 13-17 years are nearly three times less likely to have a usual source of health care, compared with children aged 5 and under.

- *Children in fair or poor health were as likely as children in excellent health to be covered by some form of health insurance. However, 41.8% of children in fair or poor health were covered by a public health insurance program, while only 15.1% of children in excellent health had public insurance.

- *Hispanic children are more likely than black or white children to be uninsured (27.7% of Hispanic children, compared with 17.6% of black children and 12.3% of white children).

- *Hispanic children are more likely than black or white children to be in fair or poor health (7.8% of Hispanic children, compared with 4.2% of black children and 2.9% of white children).

Children's Health 1996 (Publication Number 98-0008) is available through the AHCPH Publications Clearinghouse by calling (800)358-9295, or writing to *Children's Health 1996*, P.O. Box 8547, Silver Spring, Md., 20907. It also is available through the AHCPH Web site at www.ahcpr.gov.

Information provided by an Agency for Health Care Policy and Research news release dated March 9, 1998.

Disciplinary Action Bulletin - Arkansas State Board of Nursing

The nurses listed in this bulletin have had disciplinary action taken against their licenses. When a nurse's license to practice nursing is revoked or suspended, return of the license to the Board Office is requested; however, licenses may not be returned. Also, individuals placed on probation must continue to meet conditions for the retention, or future reinstatement, of their licenses. When hiring such an individual the Board Office should be contacted. Therefore, the Board routinely suggests this list be shared with the appropriate supervisory personnel and recruiters in your organization. At the completion of the disciplinary period, the nurse applies for reinstatement.

Reinstatement is contingent upon meeting the conditions set forth by the Board.

In accordance with the Arkansas Nurse Practice Act and the Arkansas Administrative Procedure Act, the Arkansas State Board of Nursing took the following action after individual hearings:

Disciplinary - March 11, 1998:

- *Shoptaw, Denise Lee Buie RN 36316, Sheridan, AR - Probation - 2 years Civil Penalty - \$500.00

- *Wood, Timmy A. RN 49016, Monticello, AR - Probation - 1 year Civil Penalty - \$500.00

Consent Agreements:

- *Arford, Russell Charles LPN 33746, Norfork, AR - Probation - 1 year Civil Penalty - \$500.00

- *Brooks, Barbara Ann Dunbar LPN 18451, Mena, AR - Probation - 1 year Civil Penalty - \$500.00

- *Cagle, Mildred Jo Ongjoco RN 48590, Jacksonville, AR - Probation - 1 year Civil Penalty - \$250.00

- *Campos Deltoro, Carolyn Ducker RN 26649, Little Rock, AR - Probation - 1 year

- *Fisher, Keith William RN 26077, Maumelle, AR - Probation - 2 years Civil Penalty - \$800.00

- *Hill, Elizabeth Ann Buckwalter RN 26424, Little Rock, AR - Probation - 1 year Civil Penalty - \$250.00

- *Jacob, Holly Jeanne RN 49559, Jonesboro, AR - Probation - 1 year

- *Jaynes, Teresa Dawn Floyd RN 43206, Cabot, AR - Probation - 1 year Civil Penalty - \$500.00

- *Johnson, Sara Dianne LPTN 1612, Little Rock, AR - Probation - 2 years Civil Penalty - \$500.00

- *McHenry, Stephanie Linette Moores RN 29435, Malvern, AR - Probation - 1 year

- *Moser, Jacqueline Stacey Morgan RN 41187, Batesville, AR - Probation - 2 years Civil Penalty - \$800.00

- *Mullins, Mary Theresa Hill RN 29198, Little Rock, AR - Probation - 1 year Civil Penalty - \$500.00

- *Pendergrass, Sandra Dee LPN 20054, West Memphis, AR - Probation - 1 year Civil Penalty - \$250.00

- *Stevens, Michael Paul RN 39271, Rogers, AR - Probation - 3 years Civil Penalty - \$800.00

Off Probation:

- *Isch, Nancy Susan RN 44280, Conway, AR 2/26/98.

- *Johnson, Christine LPN 23873, Prescott, AR 3/2/98.

- *Wall, Melissa Ann Hays RN 22583, Benton, AR 3/10/98.

- *Young, Donna Ellen RN 29424, Blytheville, AR 3/12/98.

Voluntary Surrenders:

- *Allen, Doris Annette Farrer RN 20458, Fayetteville, AR March 3, 1998

- *Henry, Stephanie Lorene Enderle LPTN 1632, Little Rock, AR February 25, 1998

- *Morgan, Gary Lynn RN 45345, LPN 18724 Oxford, AR February 24, 1998

- *Staggs, Benita Charita St. John LPN 33059, Alexander, AR March 6, 1998

Information provided by the Arkansas State Board of Nursing Update newsletter.

AMS Newsmakers

Dr. Wade Burnside, Fayetteville pediatrician; **Dr. Mae B. Nettleship**, Fayetteville pathologist; and **Dr. Charles R. Horton**, Berryville family practitioner, were honored recently with Washington Regional Medical Foundation's prestigious Eagle Award for their outstanding health leadership.

Dr. Helen McClard, a Mount Ida general practitioner, recently retired after 31 years of dedicated service. Dr. McClard began practicing medicine in Benton and moved to Mount Ida in 1982 to continue her practice.

Dr. W. R. Oglesby of Dermott was one of several healthcare providers who went on a mission trip to Aquascalientes, Mexico, in February. They set up medical and dental clinics at a conference for Mexican Baptist pastors, their families and members of their local churches. Free medications, donated through Hands Across The Border - a missionary helps ministry, were provided to all who needed them.

Dr. Hampton Roy of Little Rock was a featured speaker recently at the San Antonio, Texas, Ophthalmology Society. His topic was "The Complete Cata-

ract Refractive Surgeon: Use of the AMO Array Multifocal Intraocular Lens."

The AMA Physician's Recognition Award is awarded each month to physicians who have completed acceptable programs of continuing education. The AMS recipients for the month of March 1998 are: Jay Owen Brainard, Little Rock; James Leroy Buiteman, Fort Smith; Peter James Carroll, El Dorado; Jimmy Chas City, Searcy; John Henry Finck, Mena; Richard Lee Hayes, Jacksonville; Nancy Heiss Jones, Gravette; Eugene Allen Joseph, Searcy; Rebecca Charlene Lewis, Siloam Springs; Francis Patrick Maloney, Little Rock; Joseph Matthews, Little Rock; Eugene Edward Sloan, Little Rock; Sebastian A. Spades, Walnut Ridge; Oliver Wallace, Green Forest; and Thomas R. Wallace, Hot Springs National Park.

Send your accomplishments and photo for consideration in *AMS Newsmakers* to:

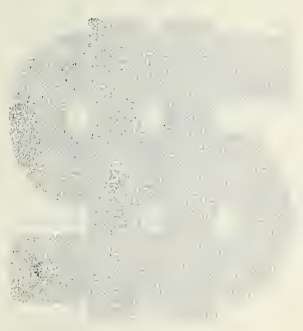
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Topics in Search of Authors

You can influence your peers - and give something back to your profession - if you plan to write an article for *The Journal of the Arkansas Medical Society*.

The Journal needs your thoughts and ideas. So why not consider putting your expertise and experience on paper? Here are some topics in search of an author.

Practice Management for today's physicians
Coping with difficult patients
Women's health issues
Teens and drug use
Medicare/Medicaid issues
Medical ethics and health care
New treatments and technology
Smoking and the Tobacco Industry
Access to care for the indigent

For information about submitting an article to *The Journal of the Arkansas Medical Society*, see *Information for Authors* on page 560 or call Tina Wade at 501-224-8967 or 1-800-542-1058.

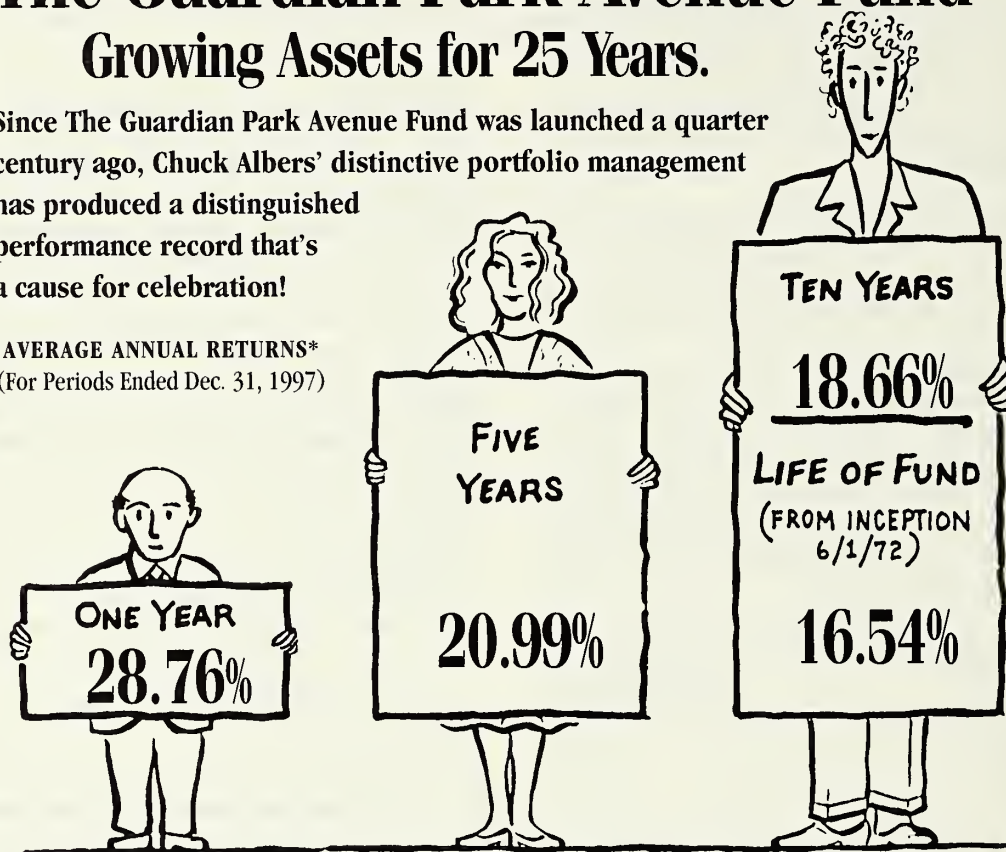
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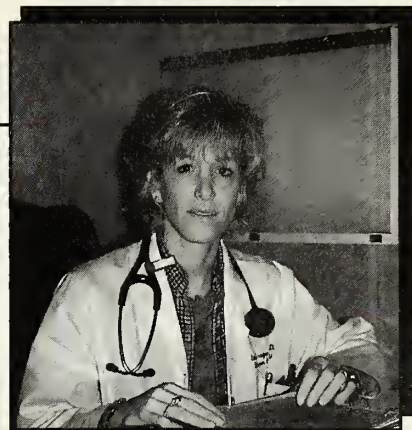
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*Past performance does not guarantee future results. Total return figures are shown for Class A shares and are historical. The figures assume the reinvestment of dividends and distributions and the deduction of the current maximum sales charge of 4.5% and all fund expenses. Prior to August 25, 1988 shares of The Guardian Park Avenue Fund were offered at a higher sales charge, so actual returns would have been somewhat lower. Performance for Class B shares, which became effective on May 1, 1996, will differ. Share price and returns will vary, so that there may be a gain or loss when shares are sold. The prospectus contains more complete information including fees and expenses. Read it carefully before you invest or send money.

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New Member Profile



Sandy Gregory, M.D.

PROFESSIONAL INFORMATION

Specialty: Radiation Oncology

Years in Practice: Three years

Office: West Memphis

Medical School: University of Medicine and Dentistry of New Jersey

Internship: Cooper Hospital, University of Medicine and Dentistry of New Jersey

Residency: Montefiore Hospital, Bronx, New York

Other Business Affiliates/Organizations: American Medical Association
and American Society of Therapeutic Radiology and Oncology

PERSONAL INFORMATION

Date/Place of Birth: July 2, 1961, in Morristown, New Jersey

Hobbies: Horseback riding/Hunter-Jumper Competition, gardening, reading,
and walking with my husband and two dogs

THOUGHTS & OTHER INFORMATION

If I had a different job, I'd be: A Professional Show Jumping Rider

Best Habit: Neatness and organization

Favorite junk food: Chocolate covered peanuts

Behind my back, they say: "She's so compulsive"

Most valued possessions: My horse and two dogs

People who knew me in medical school, thought I was: Funny

The turning point of my life was when: I got married in June 1996

Nobody knows I: Like eating chocolate for breakfast!

Favorite vacation spot: The beach

One goal I haven't achieved, yet: Having children

One goal I am proud to have reached: Completing my medical education and training

Favorite childhood memory: Spending summers riding with my friends, going to summer camp
and swimming

When I was a child, I wanted to grow up to be: Either a veterinarian or a doctor

One of my pet peeves: Sloppiness

First Job: Housecleaning for neighbors

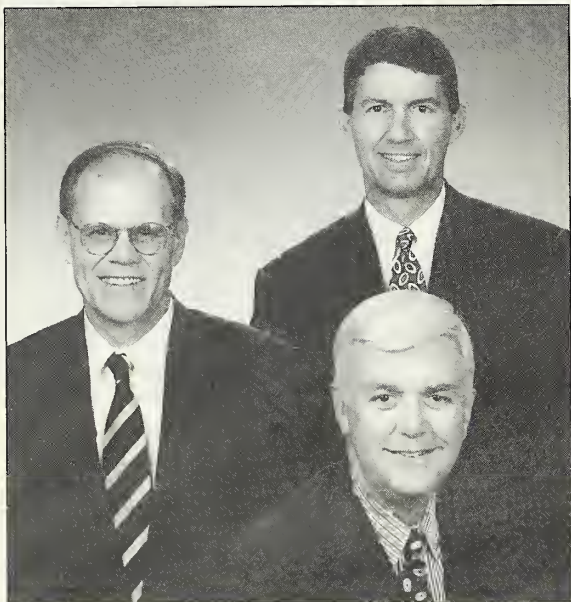
Worst Job: Internship!

One word to sum me up: Optimistic

My philosophy on life: Good luck is a combination of hard work,
dedication and going after opportunities.

If you would like to appear in *New Member Profile*, contact Tina Wade at AMS at (501) 224-8967 or 1-800-542-1058.

To Trade or not to Trade?...Should not be a multiple-choice question

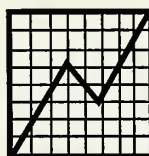


(Clockwise): left to right: Jim Strawn, Stephen Chaffin, Bill Smith

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All Bull Part II: Just "B Kool"

Lee Abel, M.D.*

The Winston cigarette ads that use the "No Bull" slogan demonstrate the techniques used to encourage young people to smoke. But these advertisements are not unique in any way, because the other tobacco companies are also eager to attract teenagers. For example, the ads for Kool cigarettes use a "B Kool" slogan and are as blatant as the Winston ads. These Kool cigarette ads show an attractive young woman looking longingly at a guy who is carrying a lighted cigarette. In fact, you just see the guy's arm and hand holding the pack of Kools and the burning cigarette, while in the center of the ad is a very attractive woman with a "come hither" look. The only words are "B Kool." These ads eliminate the distractions and get down to the basics of why people start smoking: a desire to appear sexually attractive or cool are very common reasons.

There's nothing unusual about using images like sex to sell products, but few businesses have been as successful at image making as the tobacco pushers. In some ways this is necessary because smoking is such an inherently unpleasant activity that it's a hard sell compared to other products. It's just not that easy to start smoking. The first-time smoker almost invariably coughs and feels nauseated or dizzy. Smoking stinks, tastes bad and is dirty. It intrudes on other people's space and fresh air. So you have to really want to smoke in order to put up with all the negatives. If there weren't the images, would anyone be motivated to do this? The companies say smoking is about "taste" or "pleasure" but that's just pretend, just advertising bull. It's all about image. After you've smoked long enough, it's about addiction.

The tobacco companies spend huge sums on advertising and other promotional activities to get people to start smoking and keep it up long enough to get addicted. They spend to create the illusion that smoking can satisfy a variety of psychological needs. Needs such as: to belong to a group, to feel grown up, to be rebellious, to convey an "attitude," to appear strong, brave, independent, fun loving, etc. These images are pervasive; in our society there is no escaping them.

Sometimes the images presented are contradictory. For example, the image makers have persuaded some young people that smoking is glamorous and cosmopolitan, while others have been convinced it makes them appear macho and down home. Teenage insecurities and feelings of inadequacy aren't addressed by smoking, but too many teenagers don't realize this. Too many try to bolster their self image and gain approval from their peers by smoking. The tobacco companies exploit these feelings very successfully. So successfully, that even though tobacco use has been declining among the population as a whole in recent years, it has increased dramatically among teenagers.

Steven F. Goldstone, chairman and chief executive officer of RJR Nabisco, recently defended the industry's advertising and indicated its importance. Quoting from the February 25, 1998, *New York Times*, "It's our constitutional right, and if we stop doing it" Mr. Goldstone said while making a swooping motion with his hand, "our business is going to go like that." That is, take away the images of smoking so carefully cultivated by the industry and the rates of smoking go way down. We adults are not immune to manipulation, but it's really our young people who are most susceptible. When you see a young person barely in their teens smoking (trying so hard to "B Kool"), you know they just don't have a clue about how cynically they are being-used. How hurting themselves is helping someone else financially.

As reported in the March 8, 1998, *New York Times*, President Clinton has pointed out that every day in this country "3,000 children will light their first cigarettes." He went on to say that of those 3,000 first-time smokers about 1,000 will die prematurely of smoking related causes. In the February 18, 1998, *New York Times*, Speaker of the House Newt Gingrich was quoted as saying about the tobacco companies, "Their efforts to target 14-year-olds is frankly reprehensible. I think that they are weaker than they have ever been in this city, and I think that there is virtually no sentiment for in any way listening favorably to the tobacco companies." Of course the tobacco executives deny that their behavior is wrong in any way. But then again they've denied that tobacco is addictive or harmful.

* Lee Abel, M.D., specializes in internal medicine and is affiliated with the Little Rock Diagnostic Clinic. He is a member of the editorial board for *The Journal of the Arkansas Medical Society*.

Listen to Geoffrey C. Bible, chairman and chief executive of Phillip Morris Companies, testifying in the trial of the State of Minnesota against tobacco companies as reported in the March 3, 1998, *New York Times*: "I don't know. I just don't know. I believe everyone in the world believes that smoking causes disease, I don't know. There may be others who agree with me." Whoa, there partner! The Marlboro Man, that icon of the American cowboy West, has the image of solid certainty. But Mr. Bible - the Marlboro Man in a suit and tie - seems all befuddled; he can't decide if cigarettes are bad for you. The way the Marlboro Man looks on all those billboards and magazine ads, one might think his boss would be a straight shooter and not pussyfoot around. Alas, the image is not the reality.

Mr. Bible may be right about everybody else knowing that smoking is unhealthy. Why do you think he doesn't know this? Could it have something to do with the fact that he benefits from this harmful product? He probably doesn't want to know that smoking causes cancer. He doesn't want to know that smoking causes heart disease. He doesn't want to know that smoking causes emphysema. What if Mr. Bible admitted that the actions of his company led to thousands of teenagers taking up smoking every day? What if he admitted that many of those teenagers will suffer because of this? That would be hard. It's easier for him to deny, to pretend not to know.

When the tobacco company executives testify at Congressional hearings and deny or obfuscate the addictiveness and harmfulness of tobacco, it is an amazing spectacle. There is often a sense of outrage when we witness their performance, but there is also a sense of embarrassment. We are embarrassed when we see these wealthy, well educated and articulate people act so badly. We hate to admit that the love of money has that kind of power. Maybe it also reminds us of times when we have acted selfishly or irrationally (or worse), because of concerns about money.

By acknowledging the power money can sometimes have on us, we avoid naivete about the political process. Even though it seems politicians of all stripes are attacking the tobacco industry, it doesn't mean the battle is won. Politicians are very human; money can make them say one thing and do another. Tobacco company money has for decades had an enormous effect on Congress and it remains a potent force. The tobacco industry has contributed lavishly to both Democrats and Republicans. For example, according to the April 22, 1997, *Wall Street Journal*, in 1995 and 1996, four of the top ten contributors to the Republican Party were tobacco companies. There are, of course, hundreds of huge corporations that want influence in Washington and are willing to contribute money for this purpose. When one realizes that tobacco companies occupied four spots on the top ten list of con-

tributors, it becomes clearer how the tobacco companies have so distorted the political landscape in their favor. This year, with Congress considering comprehensive tobacco control legislation, the tobacco companies will likely give record amounts to lawmakers. This is not surprising given that billions of dollars are at stake. We need to remember, and help our political leaders remember, that lives are also at stake. And that's no bull.

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Assisted Hatching of Embryos by Micromanipulation for Human In Vitro Fertilization: *UAMS Experience*

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Mahlon O. Maris, B.A.***

Dean Moutos, M.D.****

Abstract

In vitro fertilization and embryo transfer (IVF) is utilized as a treatment for infertile couples who cannot conceive with standard therapy. Assisted hatching (AH) is a procedure whereby an opening is made in the zona pellucida of the embryos, thereby increasing the probability of implantation and pregnancy. AH is beneficial in patients with elevated FSH levels, older than age 38 or those who failed IVF repeatedly.

Success rates after IVF with AH at the University of Arkansas for Medical Sciences (UAMS) compares favorably with rates achieved by other centers in the USA. Pregnancy rates after IVF with AH in patients older than 38 years is approximately 20% compared to a pregnancy rate of 10% in patients who did not have AH. This report summarizes the UAMS experience with IVF and AH.

Introduction

Approximately two decades ago the first baby following in vitro fertilization and embryo transfer (IVF) was born in England.¹ Ten percent of all couples in the United States are infertile. IVF is frequently utilized when standard therapies such as surgery, insemination and/or ovulation induction fails. Although overall clinical pregnancy rates and delivery rates have improved over the years, success rates reported in 1994 by IVF clinics can vary as much as ten-fold (Society for Assisted Reproductive Technology, USA; Australian Institute of Health and Welfare National Perinatal Statistical Unit, Australia and Human Fertilization and

Embryology Authority, UK). The factors which influence success rates obtained include age, type of infertility patients seen by the clinic, types of ovarian stimulation, quality of the oocytes, culture conditions and handling of gametes and embryos, quality of the embryos, embryo transfer technique and endometrial receptivity. Since these factors interact with each other it is difficult to compare different clinics or treatments and thus progress in this field has been slow.

The assisted hatching (AH) is a procedure whereby a hole is made in the zona pellucida of the embryos by cutting an opening with a glass needle, with acidified Tyrode's (AT) or laser beam. AH increases implantation and pregnancy rates by enhancing hatching. AH is beneficial in patients older than 38, with elevated FSH or those who failed IVF repeatedly.^{2,3} However, some reports challenge the usefulness of AH in increasing the pregnancy rates.^{4,5} Although pregnancies have been achieved with AH of frozen embryos,⁶ the benefit of AH is not clear.

The University of Arkansas for Medical sciences began an IVF program in 1988 and introduced AH in 1995. We report our experience with AH in treating patients at UAMS.

Materials & Methods

Standard protocols for ovarian stimulation were used for human IVF.⁶ Briefly, patients were down regulated with daily leuprolide acetate injections (Lupron; TAP Pharmaceuticals, Dearborn, IL) beginning in the mid-luteal phase. Once ovarian suppression occurred, human menopausal gonadotropins were begun. Oocytes were retrieved 35 to 36 hours after human chorionic gonadotropin injection, washed in medium and pooled in one or two dishes. Pooled mature oocytes were randomly selected and placed in an organ culture dish containing culture media with 5 mg/ml bovine serum albumin (BSA, Sigma, St Louis, MO).

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Table 1: Results of Assisted Hatching of IVF Embryos at UAMS

	<39 Years				≥39 Years			
	1995	1996	1997	Total	1995	1996	1997	Total
#Patients Cycle	2	11	13	26	16	17	10	43
Average age (range)	35.0 (35-35)	33.0 (28-38)	33.9 (27-37)	34.0 (27-38)	40.1 (39-43)	40.1 (39-43)	39.0 (39-41)	39.7 (39-43)
Average number of embryos transferred (range)	3.5 (3-4)	3.5 (3-6)	3.4 (2-4)	3.45 (2-6)	3.1 (1-6)	3.1 (2-5)	4.0 (3-5)	3.4 (1-6)
Ongoing/Delivered (%) Pregnancy	0	4 (36.4)	4 (30.8)	8 (30.8)	1 (6.3)	4 (23.5)	2 (20.0)	7 (16.3)

Approximately 100,000 motile Percoll (Sigma, St Louis, MO) washed spermatozoa were added to each dish containing 1 to 3 oocytes. Approximately 12 to 20 hours after insemination, oocytes were examined for fertilization. Oocytes and embryos were incubated in a humidified air of 5% CO₂, 5% O₂ and 90% N₂ at 37° C.

For the first two years of our program AH was only attempted in patients who failed IVF at least two times previously or women with high serum FSH levels or age 39 or greater. In 1997, with apparent improvement in pregnancy rates after AH, we selected patients 36 years and older and also initiated AH of frozen thawed embryos. Up to six embryos were selected on either day 2 or day 3 of oocyte recovery and insemination based on the recommendation of the physician. The number of embryos to be transferred was based on maternal age, FSH level, risk for multiple pregnancy, embryo quality and past history. Ideally, the majority of the embryos should be at 6 to 16 cell stage with visible nuclei on day 3 when AH was performed.

AH involves micromanipulation² of the embryos as shown in Fig 1. Each embryo was in a buffer solution (phosphate buffered saline or HEPES buffered Ham's F 10) at 34 - 37° C and stabilized with a holding pipet. Acid Tyrode's solution was sprayed on the zona pellucida with a micropipet until part of the zona dissolved. Immediately the expelled acid was aspirated along with some of the embryo fragments inside the perivitelline space. Then the embryos were washed twice and placed in a dish containing culture medium for 0.5 to 4 hours before transfer to the uterus. A clinical pregnancy was defined as positive hCG and ultrasound confirmation of an intrauterine gestational sac with a heartbeat, approximately 4 weeks after embryo transfer.

The outcome of IVF with AH was retrospectively analyzed comparing patients less than 39 years versus patients 39 years and older. Also, the outcome of IVF with AH was compared with IVF without AH in pa-

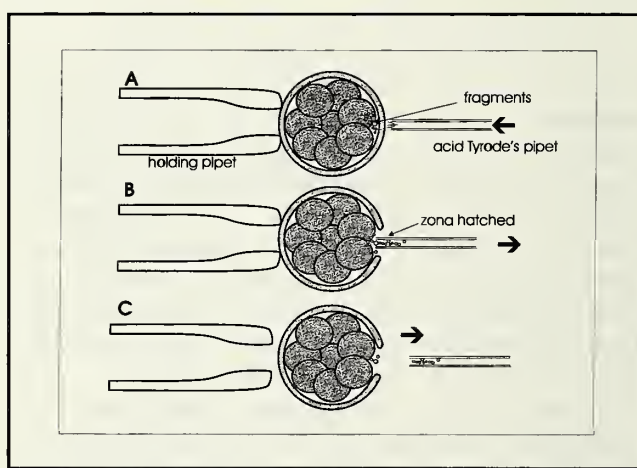


Figure 1. A schematic diagram showing assisted hatching (AH) procedure. A) 8 - cell embryo was stabilized with a holding pipet (suction) and acid Tyrodes solution (pH 2.35) is ready for AH. B) Zona pellucida is being sprayed with acid Tyrode's solution until a small opening is made and small number of cytoplasmic fragments and acid solutions aspirated. C) Assisted hatched embryo was released from the holding pipet after withdrawal of the acid Tyrode's pipet.

tients 39 years or older. In addition, the pregnancy outcome of IVF with AH during the first year of AH was compared with the second year of AH. Relative risk odds ratio or Log-likelihood ratio non-parametric analysis was done to determine the statistical significance of the comparisons.

Results

The outcome of IVF with AH in patients less than 39 years appeared to be better than in those patients 39 years and older (Table 1, 30.8% vs 16.3%; $p=0.1333$) but did not reach significance because of the small sample size. The average number of embryos transferred in these groups of patients were similar (Table 1). The pregnancy rate in 1995 with AH was 5.6% compared to 28.6% in 1996 ($P = 0.0393$).

Table 2: Comparison of Patients (>38 year) with and without Assisted Hatching at UAMS

	No Assisted Hatching	With Assisted Hatching	With Assisted Hatching (Excluding first year, 1995)
# Cycles	21	43	27
Average Age (range)	40.1 (39-43)	39.7 (39-43)	39.6 (39-43)
Average Number of Embryos Transferred (range)	3.1 (1-5)	3.4 (1-6)	3.5 (2.5)
Ongoing/Delivered Pregnancy (%)	2 (9.5)	7 (16.3)	6 (22.2)

In patients 39 years and older, a similar non-significant trend toward a high pregnancy rate was observed in 1996 (23.5%) and 1997 (20%) compared to 1995 (6.3%) following IVF with AH (Table 1). Women who had IVF with AH achieved higher pregnancy rates compared to patients who had IVF without AH (16.3% vs 9.5%; non-significant; Table 2). Moreover, after excluding first year cases when pregnancy rates were low, the pregnancy rate in the last two years is 22.2% per AH cycle.

In addition, six of the 20 patients who had frozen embryo transfers after IVF with AH conceived and three of them are ongoing or delivered.

Discussion

Our experience with AH is encouraging since acceptable pregnancy rates of approximately 20% per embryo transfer cycle have been achieved in patients 39 years and older. In patients who did not have AH, the pregnancy rate is about 10%. Although our sample size is small this study supports the notion that AH enhances pregnancy rates by facilitating hatching and implantation in some patients with hardened or tough zona, particularly in the older patients. Reasons why the zona is hardened in some IVF embryos is not clear.² It may be related to oxidative stress in vivo in older patients. This can also be because culture conditions are not optimal at present.

AH procedure requires that the technologist maintain this skill after a learning curve of 6 to 12 months by frequent practice and doing many procedures in human, or an animal model. This is supported by our finding that the pregnancy rate with AH is lower in the first year than the second year. Moreover, success of the procedure is difficult to evaluate because the

endpoint of pregnancy is influenced by many factors such as age of the patient, transfer technique, culture conditions and type of patient that are not related to the AH procedure. This may explain why there is controversy regarding value of AH in IVF patients. While some reports suggests improved pregnancy rate after AH of fresh or frozen thawed embryos,^{2,3} some did not find any improvements.^{4,5} There are few properly randomized studies published. Success rate after IVF with AH at UAMS compares favorably with rates achieved by other centers in the USA and around the world.

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Mental Health in Arkansas

Frederick G. Guggenheim, M.D.

In this month of Mental Health Awareness, we want to let you in on one of the hidden secrets in Arkansas: the on-going research of the Department of Psychiatry and Behavioral Sciences at UAMS. Out of the 125 Departments of Psychiatry at medical schools around the country, the Department ranks in the top quarter, based on federal grants for research. Interestingly, over the past decade the Departments of Psychiatry have grown from the eighth ranking amongst medical school departments to be the second leading group of grant getting departments, behind Internal Medicine.

Rather than describing what we have been doing, we want to let you know about the kind of researchers we have been able to recruit this academic year to come to Little Rock and the Department of Psychiatry. Here we highlight the two most recent investigators to join on.

Tim Kimbrell, M.D., a UAMS graduate, has recently returned to the Little Rock VA Medical Center after spending 3-1/2 years at the National Institute of Mental Health (NIMH) in Washington, D.C. While at NIMH, Dr. Kimbrell spent much time investigating repetitive Transcranial Magnetic Stimulation (rTMS), a cutting-edge new, benign and effective treatment for depression that works on the brain at a molecular and neurochemical level.

This treatment methodology and theory is based on one of the most controversial treatments for depression, electroconvulsive therapy (ECT), which has the adverse side effect of disturbing recent memory and it requires the presence of an anesthesiologist during its administration. While ECT is very effective, there is hope that rTMS, still in the investigative stage of research, can produce the same (or better) positive results without the negative side effects. It is a less intense, less invasive technique and can be done on an outpatient level. Dr. Kimbrell has been very encouraged by the results that he has obtained with this treatment modality and hopes to bring its availability to Arkansas as a research instrument for the treatment of refractory affective disorders.

George Bartzokis, M.D. has recently been named the Associate Chief of Staff for Mental Health Services

at the VA Medical Center. He will have a staff of more than 300 mental health workers (psychiatrists, psychologists, psychiatric social workers, pharmacologists, psychiatric nurses and other support staff) reporting to him. He will report to Craig Karson, M.D., Professor of Psychiatry, who is now Chief of Staff at the Little Rock VA.

Dr. Bartzokis is currently a Staff Psychiatrist in the research service of the West Los Angeles VA and an Assistant Professor of Psychiatry at the UCLA Department of Psychiatry and Biobehavioral Sciences. He trained at the School of Medicine at Yale and took his residency training at UCLA. He has been involved in clinical research for over 13 years with a focus on brain imaging and medication evaluation and treatment. Another very exciting and unique area of his research involves an *in vivo* method of quantifying brain iron deposits with specificity using magnetic resonance imaging (MRI). He has investigated the role of brain iron deposits in aging and age-related neurodegenerative disorders such as Alzheimer's, Parkinson's, and Huntington's diseases with some startling results (more to come about this).

Dr. Bartzokis has also been involved in clinical care and research in schizophrenia and in substance use disorders with a special interest in medication development, neurotoxicity of drugs of abuse and antipsychotic medications, and the relationship between brain structure and function. He was an investigator on the multi-center clinical trial of pharmacokinetic study of LAAM, the site PI of a completed multi-center clinical trial of selegiline for cocaine dependence, and the PI of a single-site trial of risperidone for the treatment of cocaine and amphetamine dependence.

Dr. Bartzokis has successfully incorporated laboratory and brain imaging measures into clinical trial protocols helping demonstrate the neurotoxic effects of psychostimulants and the brain's metabolic response to cocaine induced euphoria and its modification by pharmacologic interventions.

We are looking forward to the clinical care and research from Drs. Bartzokis and Kimbrell in the Department of Psychiatry at UAMS. In this Mental Health Awareness Month, we take this occasion to celebrate them and look forward to their contributions to the mental health of Arkansans.

* Dr. Guggenheim is Chairman of the UAMS Department of Psychiatry and Behavioral Sciences.

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Hypertension and Asthma

An AFMC Project

William E. Golden, M.D.*

For the past five years, the Arkansas Foundation for Medical Care, Inc. (AFMC), Health Care Quality Improvement Program (HCQIP), has focused primarily on inpatient projects. In 1996, we began expanding project information to include outpatient issues. Earlier ambulatory topics included management of thyroid disease, diabetes and flu immunization.

This AFMC project focuses on the prevalence of facility resources to manage hypertension and asthma as part of quality improvement efforts for Medicare and Medicaid patients in Arkansas. AFMC understands that outpatient facilities frequently lack an infrastructure to conduct outpatient chart audits in an efficient and effective fashion. This difficulty in data acquisition reflects a significant barrier. Nevertheless, certain processes and structural elements can be assessed to improve management of common outpatient conditions.

Hypertension

Hypertension is one of the most common chronic conditions actively managed by primary care physicians. Over 50% of patients have hypertension by age 55. The incidence of hypertension increases with the presence of obesity. Modern pharmacology enables better blood pressure control with fewer side effects.

Management of hypertension requires accurate measurement and recording of blood pressure readings. Medications for hypertension can be expensive and prone to side effects when used in combination with pharmaceuticals for other conditions. Patient compliance can decline when the number of medications and dosages consumed per day increases. Hence, the fewest number of drugs and dosages per day is an ideal goal for optimal management of a patient's elevated blood pressure.

Accurate blood pressure assessment is essential for good long-term management. Erroneous blood pressure readings can occur from several factors. Misinterpretation of Korotkoff sounds (inattention to auscultatory gap, too rapid deflation of blood pressure cuff, inattention to subtle initiation and disappearance of the first and fifth Korotkoff sounds) represents a fundamental competency issue. On the other hand, inappropriate blood pressure cuff size is a common and frequently under appreciated factor in poor speci-

ficity (falsely elevated readings) of blood pressure recordings. To record accurate blood pressure measurements, the inflatable bladder of the blood pressure cuff must encircle at least 75% of the patient's arm. For a large number of obese and muscular patients, the standard adult blood pressure cuff is simply too small to record accurate blood pressure readings. All primary care offices should have large adult and/or thigh blood pressure cuffs available and used regularly by office personnel in the regular surveillance of patients' blood pressures. Blood pressure recording should be a regular vital sign on all office visits. Physicians should assess blood pressure measurement themselves in difficult cases or episodes of care resulting in significant changes in medication or dosages.

Asthma

Asthma is a chronic medical condition of intrinsic airway hypersensitivity for which morbidity and mortality is increasing nationwide. It is a subject of intense scrutiny by managed care. Compliance with national guidelines on asthma management should reduce the number of hospitalizations and emergency room visits in the asthmatic population. Patients with asthma who are treated appropriately with inhaled anti-inflammatory agents and spacers should have increased physical functioning and reduced sleep disturbance from nocturnal cough and dyspnea. (These recommendations focus on intrinsic asthma without underlying lung disease which is more appropriately reflective of bronchospastic COPD, commonly seen in patients with years of chronic tobacco use.)

Critical to the ambulatory management of asthma is the quantitative measurement of airflow in afflicted patients on a regular basis. Physical examination and a patient's reporting of symptoms are not sufficiently sensitive to maximize long-term therapy. National guidelines recommend that all patients with asthma have peak flow meter readings on every visit to their primary care physician's office. All primary care facilities should have peak flow meter readings available to office personnel. Peak flow meters are inexpensive to maintain and the measurement is easy to perform by office personnel. Peak flow measurement should be part of the vital signs record. It should be recorded during patient intake for all patients with the diagnosis of intrinsic asthma. Motivated patients could be educated to use peak flow measurements at home to

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guide administration of their anti-inflammatory medications. Thus, recording of peak flows is a core component of effective asthma management along with proper prescription of medications.

Conclusions

1. Management of common, chronic ambulatory conditions such as asthma and hypertension require ongoing quantitative measurement at each office visit.

2. Primary care offices should have certain procedures and equipment available to manage these conditions properly.

Suggestions

1. All primary care offices should conduct an inventory to ensure large adult and/or thigh blood pressure cuffs are readily available and properly used by office personnel to monitor hypertension.

2. Most patients should have blood pressure recordings on every office visit and endomorphic patients (especially those with weights >180 pounds) should have blood pressure cuff size recorded alongside the systolic and diastolic pressures on the patient chart.

3. All primary care offices should have peak flow meters available and used by office personnel to properly manage ambulatory asthma patients' care.

4. Patients with chronic, intrinsic asthma should have peak flow measurements recorded on every office visit.

5. Offices should discuss with nursing personnel regular proper recording of blood pressure, blood pressure cuff size and peak flow meters for appropriate patients.

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Medications Used for Each Level of Asthma Severity

Severity

Treatment

Mild

Inhaled β_2 -agonists as needed
 - Before exercise or other stimuli
 - For symptom relief

*If daily use or >3 doses of β_2 -agonist per day**



Moderate

Inhaled β_2 -agonists as needed.
 Inhaled anti-inflammatory agent - taken daily
 - Inhaled corticosteroids
 - Cromolyn
 - Nedocromil

*If symptoms persist**



Inhaled β_2 -agonists as needed.
 Inhaled corticosteroids (higher dose)
 - With or without cromolyn or nedocromil
 - With or without extended-release theophylline and/or oral β_2 -agonist, particularly to control nocturnal symptoms.

*If symptoms persist**



Severe

Inhaled β_2 -agonists as needed.
 Inhaled corticosteroids (higher dose)
 - With or without cromolyn or nedocromil
 - With or without extended-release theophylline and/or oral β_2 -agonist, particularly to control nocturnal symptoms.

Oral corticosteroids

- Use daily or alternate day schedule.
 - Reassess often, may need only for short term.

*Assess if medications are being taken correctly. If not, teach the patient to take medicines correctly.
 When taken correctly, patients may not need to increase their medications.

Algorithm for the Treatment of Hypertension

Begin or Continue Lifestyle Modifications



Not at Goal Blood Pressure (<140/90 mm Hg)
Lower goals for patients with diabetes or renal disease



Initial Drug Choices*

Uncomplicated Hypertension**

Diuretics
Beta-blockers

Specific Indications for the Following Drugs

ACE inhibitors
Angiotensin II receptor blockers
Alpha-blockers
Alpha-beta-blockers
Beta-blockers
Calcium antagonists
Diuretics

Compelling Indications**

Diabetes mellitus (type 1) with proteinuria
-ACE inhibitors
Heart failure
-ACE inhibitors
-Diuretics
Isolated systolic hypertension (older persons)
-Diuretics preferred
-Long-acting dihydropyridine calcium antagonists
Myocardial infarction
-Beta-blockers (non ISA)
-ACE inhibitors (with systolic dysfunction)

-Start with a low dose of a long acting once-daily drug, and titrate dose.
-Low-dose combinations may be appropriate.



Not at Goal Blood Pressure



No response or troublesome side effects



Substitute another drug from a different class



Inadequate response but well tolerated



Add a second agent from a different class (diuretic if not already used).



Not at Goal Blood Pressure



Continue adding agents from other classes.
Consider referral to a hypertension specialist.

*Unless contraindicated, ACE indicates angiotensin-converting enzyme; ISA, intrinsic sympathomimetic activity.

**Based on randomized controlled trials.

The Sixth Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. Archives of Internal Medicine 1997;157:2413-2446.

To
those physicians who volunteer
through the Arkansas Health
Care Access Foundation,
Thank You!
As you can see from a sampling of
letters we have received, your
involvement in our program is
appreciated and in many
cases life-saving.

It has been three days since you
sent me to the doctor and I have
a ways to go to be 100%, but I can
breathe and walk across the room
now. I had given up hope almost,
and I remembered Arkansas Health
Care. The doctor gave me two of
the medicines I needed and the
pharmacy you sent me to filled the
antibiotics. Your doctor even
"chewed" me out for not coming in
two weeks previously. I'm starting
to feel good again. God bless you.

Western Wildlife

As Easterners moved West, pioneers
found animals as exotic as the landscape...
buffalo, prairie dogs, bears, beavers, bighorn
sheep, cougars, wolves and rattlesnakes.

The eagle became a national symbol.

I wanted to thank everyone
involved with this
program. We had no
one else to turn to
and we were in desperate
need of doctors and
medications.
Your program has
helped us through a very
difficult time.



Arkansas Health Care Access
Foundation

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Little Rock, AR

722-15-6248

I would like to say thank you first
of all. Your program made it
possible for me to have a
mammogram when I had no
where else to turn. I did not
realize there was such a program.
...it is a much needed program.
Thanks again.

For more
information
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you can help,
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Due to your generous
assistance, I was able to
see an eye doctor and no
longer fear the loss of my
vision. Thank you all for
being there.

When I needed medical
attention, I was blessed with the
knowledge of your program.
There were kind and helpful
people to guide me.

THANK YOU FOR MAKING THE DIFFERENCE!



Kamil Hanna, M.D.*
Tamim Antalki, M.D.**
Joe K. Bissett, M.D.*
J. David Talley, M.D.*

Vasodepressor Syncope

Transient loss of consciousness is most commonly caused by vasodepressor syncope, so called "the common faint."^{1,2} Vasodepressor syncope occurs early in life and is not common in older patients. It is usually benign. A thorough knowledge of the clinical scendario of the common faint is critical in establishing the correct diagnosis. We recently cared for a patient with symptomatic vasodepressor syncope and discuss this condition.

Patient Presentation

History and Physical Examination. A forty-year-old male was brought to the Emergency Department by his wife after "passing out." Earlier that evening, the patient had become lightheaded and felt tingles in his body and arms and then lost consciousness. His wife noted jerking movements of his arms for approximately one minute. In the Emergency Department, while an IV was being inserted, the patient complained of nausea and dizziness and again lost consciousness. The telemetry monitor showed 18 seconds of asystole (Fig 1). After few chest compressions and the administration of atropine, the patient developed a narrow complex QRS with pulse of 30 beats/minutes, which increased over the next two to three minutes to 60 beats per minute. The patient then regained consciousness.

The patient and his family had a history of fainting while blood was drawn. The remainder of the history and review of systems were negative or non-contributory.

The physical examination, including the cardio-

vascular and neurological systems, was normal.

Hospital Course. The hematological and chemical profiles and the ECG and continuous telemetry monitoring were normal. A CT scan of the brain, EEG, echocardiogram and left heart and coronary arteriogram were normal. A dual chamber pacemaker in the DDD-R mode was inserted. A head-up tilt test was scheduled as an outpatient.

Discussion

History and Pathophysiology. Vasodepressor syncope often occurs in response to sudden physiologic stress or in a setting of real or threatened injury. Venipuncture, the site of blood, or severe tissue injury frequently precipitates the reaction. It usually occurs when the patient is upright or sitting and is characterized by sudden hypotension and bradycardia (occasionally asystole of 10-20 seconds or greater, as in our patient)

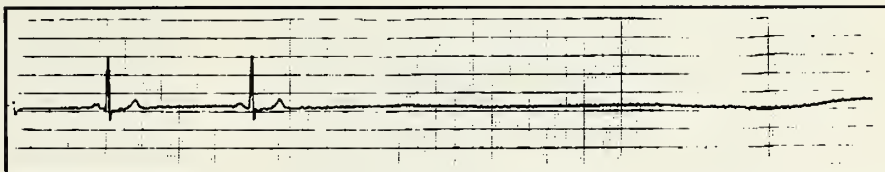


Figure 1: Rhythm strip of a patient with vasodepressor syncope obtained immediately after an IV was inserted. Asystole lasted for 18 seconds. The patient lost conscious but was resuscitated with atropine.

with near or complete loss of consciousness. Transient convulsive movements and incontinence may occur. Premonitory symptoms, including pallor, cold perspiration, or nausea may occur prior to loss of consciousness. Abrupt hypotension and loss of consciousness follow these symptoms.

In vasodepressor syncope, there is a sudden withdrawal of sympathetic vasoconstrictor activity.^{3,4,5} The peripheral arterial dilatation and bradycardia are caused by activation of unmyelinated left ventricular vagal fibers, the C-fibers that transmit signals to the medulla

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(the nucleus tractus solitarius). C-fibers are mechanoreceptors, which are sensitized or stimulated by hypercontractility of ventricles and high levels of catecholamines, nicotine, and vasopressor.^{6,7} C-fiber activation reduces efferent sympathetic tone and increases efferent vagal tone, resulting in vasodilatation and bradycardia.

Diagnostic Evaluation. The history and physical examination are the starting point in the evaluation of patients with syncope. Although the diagnostic yield of a 12 lead ECG is low, arrhythmias and myocardial infarction can be treated quickly if present. Furthermore, patients with a normal ECG have a low likelihood of arrhythmias as the cause of syncope and are at low risk of sudden death. Therefore, prolonged ECG monitoring rarely leads to a specific diagnosis. If the presence or absence of heart disease can not be determined clinically, specific tests such as echocardiography, exercise stress testing, or coronary angiography may be needed to rule out underlying cardiac disease as a cause to the syncope. The yield of performing an electrophysiologic study in patients with suspected vasodepressor syncope is low.

Passive head-up tilt testing is extremely useful for the identification of patients with vasodepressor syncope and for evaluation of therapy.⁸ The patient is "tilted" upright to 60 - 80 degrees for 20 - 60 minutes. When isoproterenol is infused to a patient undergoing a tilt table test, the sensitivity and specificity of a positive response for the diagnosis of vasodepressor syncope both hover in the range of 80%.⁹ The test is reproducible in 75% and false positive result range from 0 to 11%. Patients less than 60 years of age with syncope and without structural heart disease have an excellent prognosis.¹⁰

Management. A variety of medications and pacemakers have been used in patients with vasodepressor syncope. The most commonly used drugs are beta blockers (metoprolol 50-200 mg. qD, atenolol 25-200 mg. qD, and propranolol 40-100 mg. qD),⁹ which inhibit the activation of cardiac mechanoreceptors by decreasing cardiac contractility. Anticholinergic drugs (transdermal scopolamine, 1 patch every 2-3 days) have been tried in patients with profound bradycardia during upright tilt testing.⁹ Disopyramide (200-600 mg qD)

has anticholinergic and negative inotropic effects that may inhibit cardiac mechanoreceptors.¹¹ Finally, atrio-ventricular pacing has been utilized in some patients with significant bradycardia in response to upright tilt testing.¹² Pacemakers may prevent the bradycardic response of vasodepressor syncope but the patient may still lose conscious use to profound hypotensive response.

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State Health Watch

Information provided by the Arkansas Department of Health, Division of Epidemiology

Tickborne Diseases in Arkansas

The major tickborne diseases of concern are Rocky Mountain Spotted Fever (RMSF), Ehrlichiosis, and Tularemia. Even though Lyme Disease is the most commonly reported tickborne disease in the United States, the existence of true Lyme Disease in Arkansas is still in the investigative stage since we have never demonstrated the *Borrelia burgdorferi* spirochete in ticks or by skin biopsy from Erythema Chronicum Migrans (ECM) lesions. It may be that we are dealing with a causative agent similar to *Borrelia burgdorferi* as has been reported from Missouri. A limited number of patients present with compatible symptoms including typical ECM lesions. These same patients, however, often show negative laboratory tests.

Rocky Mountain Spotted Fever (Tickborne Typhus) - The causative agent, *Rickettsia rickettsii*, is transmitted by the bite of an infected tick. The tick must be attached for at least 4 to 8 hours to transmit the rickettsia. All species of ticks can be infectious, and larval, nymph and adult ticks all are capable of transmitting the disease. After an incubation period of 3 to 14 days, there is a sudden onset of fever, headaches, myalgia, and conjunctivitis. A rash is often present after the third day. The rash typically starts on the extremities and spread to the trunk of the body and may appear on the palms and soles. The rash is erythematous and macular and later may become petechial and ecchymotic.

Tetracyclines (or Chloramphenicol for children under 8 years of age and pregnant women) are effective when given in daily oral doses for 5 to 7 days and for at least 48 hours after the patient is afebrile. Do not wait for laboratory confirmation since early treatment is a must. Other antibiotics are ineffective. The case fatality rate ranges between 13 and 25% in the absence of specific therapy.

Acute and convalescent serum specimens may be sent to the laboratory at the Arkansas Department of Health (ADH) for testing. A positive IFA test > 1:64 with compatible symptoms or a four-fold rise between acute and convalescent serum titers is diagnostic.

During 1997, 30 cases of Rocky Mountain Spotted Fever were reported to the ADH. There were no reported deaths.

Ehrlichiosis - Ehrlichiosis is sometimes referred to as spotless RMSF since a rash is normally not present. It also varies clinically from RMSF since one or more liver function tests are elevated along with leucopenia. Thrombocytopenia occurs with both diseases.

There are two variants of Ehrlichiosis in humans, Human Monocytic Ehrlichiosis (HME) is caused by *Ehrlichia chaffeensis* and Human Granulocytic Ehrlichiosis (HGE) is caused by *Ehrlichia equi* or like organisms. Their names are derived from the types of white cells they infect: mononuclear phagocytes or granulocytes.

The two infections are clinically indistinguishable. The spectrum of disease ranges from a mild illness to a severe, life threatening disease. Symptoms are usually nonspecific; the most common complaints are fever, headache, anorexia, nausea, myalgias and vomiting. The incubation period is 7 to 21 days.

Ehrlichia canis causes disease in dogs. Several hundred cases are reported annually in Arkansas. In dogs, the most common symptoms are bleeding from the nose, anemia, weight loss and unthriftiness. Tetracycline is the drug of choice for treatment of canines. It was originally thought that *E. canis* was the cause of human disease, but researchers have recently identified *E. chaffeensis* as the causative organism. The status of dogs and other animals as carriers is unclear.

Physicians with patients exhibiting atypical RMSF-like symptoms should consider Ehrlichiosis and blood samples may be submitted to the ADH for both tests. The sample for Ehrlichia testing will be forwarded to the Centers for Disease Control (CDC) laboratory. RMSF testing will be conducted at the ADH.

Treatment is the same as for RMSF.

In 1997, twenty two cases were reported to the ADH. There were 4 deaths relating to Ehrlichiosis during the year, all in older people.

Tularemia (Rabbit Fever) - Tularemia is a zoonotic disease with clinical manifestations which vary according to the route of introduction and the virulence of the disease agent. This disease is caused by *Francisella tularensis*, a small gram-negative

coccobacillis. Numerous wild and domestic animals provide a reservoir for the disease. Human exposure is most often by a tick bite or from dressing wild game animals that are infected. Dressing wild rabbits and squirrels occasionally results in human disease in Arkansas. Tularemia presents, after an incubation period of 3 to 7 days, with swelling of a regional lymph gland in the area of tick attachment. Less common routes of infection include ingestion of organisms in contaminated food and water which may cause pharyngitis, abdominal pain, diarrhea, and vomiting. Inhalation of infectious dust may cause pneumonia and septicemia.

Even though the disease may be transmitted in a number of ways, 80% of reported cases are caused by tick bites, resulting in the ulceroglandular form of the disease. Tularemia is generally distinguishable from RMSF by the presence of swollen lymph glands and the absence of a rash.

Confirmation of a clinical diagnosis is by an agglutination test that can be performed by the ADH laboratory. Antibodies may be detected in 10 to 14 days, peak in 4 to 5 weeks, and remain elevated for years.

The treatment of choice is Streptomycin or gentamicin, given for 7 to 14 days.

There were 24 cases of Tularemia reported to the ADH during 1997, with no deaths.

Lyme Disease (Borreliosis) - This tickborne, spirochetal, zoonotic disease is characterized by a distinctive skin lesion, systemic symptoms, and neurologic, rheumatologic and cardiac involvement occurring in varying combinations over a period of months to years. The first manifestation in about 60% of patients is a red macule or papule that expands slowly in an annular manner. This distinctive skin lesion is called Erythema Chronicum Migrans (ECM). To be significant, the lesion must be 2-1/2 inches in diameter. Other symptoms include malaise, fatigue, fever, headache, stiff neck and migratory arthralgias. Neurologic abnormalities, including ataxia, facial palsy, meningitis, etc., may develop in weeks or months. Cardiac abnormalities including atrioventricular block, pericarditis, etc., may also be present. Weeks to years later, swelling and pain may occur in the large joints.

The causative organism is a spirochete, Borrelia burgdorferi, which has not been identified in ticks in Arkansas. However, similar spirochetes have been identified in Missouri and Arkansas and probably cause

similar symptoms resulting in the patient being diagnosed as having Lyme Disease.

The vector of Lyme Disease in the eastern United States is Ixodes scapularis, the black legged tick, most often found on deer. Other species of ixodid ticks may also be vectors. The Lone Star tick, Amblyomma americanum, may also be a vector, but researchers have not been able to culture the bacterium from that species. Spirochetes isolated from the Lone Star tick are closely related to Borrelia burgdorferi and are the probable cause of Lyme-like disease in humans.

The bacterium which causes Lyme Disease is not transmitted through the tick eggs so larval ticks are not infected and cannot transmit the disease. The larval or seed ticks feed on an infected animal, usually a rodent, and acquire the infection, which persists for life. Thus the nymphs and adults are capable of transmitting the disease to another animal or man.

The bacterium of Lyme Disease is transmitted in the saliva while the tick is feeding. The long period between attachment and commencement of feeding is important to Lyme Disease prevention. Early detection and prompt removal of the tick will help to prevent infection.

The incubation period for Lyme Disease is listed as 3 to 33 days. Be aware that normal body reaction to tick bites often results in an itching, solid red or pink area around the tick bite that is about one inch in diameter and disappears after a few days. This is not the typical ECM lesion, which is bullseye in contour, may be lighter in color in the center and reddened around the periphery.

Serum samples may be submitted to the ADH Microbiology Laboratory for further transmission to the CDC Laboratory for testing. The laboratory will conduct the Elisa test and a Western Blot. It is believed that these tests are 85% sensitive, but the predictive value of a positive Elisa test alone is very low. Physicians may also submit punch biopsies from ECM lesions for spirochete identification.

Specific treatment: For adults, the ECM stage can usually be treated effectively with doxycycline (100mg twice daily) or amoxicillin (500mg 4 times daily). For localized ECM, 2 weeks of therapy is usually sufficient; for early disseminated infections, 3 to 4 weeks of therapy should be given.

During 1997, there were 26 cases of Lyme Disease reported to the ADH which met the CDC's case definition.

Reported Cases of Selected Diseases in Arkansas Profile for February 1998

The three-month delay in the disease profile for a given month is designed to minimize any changes that may occur due to the effects of late reporting. The numbers in the table reflect the actual disease onset date, if known, rather than the date the disease was reported.

Reportable Diseases	Total Reported Cases YTD 1998	Total Reported Cases YTD 1997	Total Reported Cases YTD 1996	Total Reported Cases 1997*	Total Reported Cases 1996
Campylobacteriosis	14	26	22	175	241
Giardiasis	17	28	21	220	182
Shigellosis	20	23	10	273	176
Salmonellosis	24	23	35	446	455
Hepatitis A	9	45	114	221	500
Hepatitis B	18	17	22	98	93
Hepatitis C	0	2	0	5	7
HIB	0	0	0	2	0
Meningococcal Infections	6	12	8	38	35
Viral Meningitis	2	5	6	25	38
Ehrlichiosis	0	0	0	22	7
Lyme Disease	0	3	1	26	27
Rocky Mountain Spotted Fever	3	0	0	29	22
Tularemia	0	0	1	24	24
Measles	0	0	0	0	0
Mumps	0	0	0	1	1
Gonorrhea	820	778	826	4388	5050
Syphilis	34	78	160	394	706
Legionellosis	0	0	0	1	1
Pertussis	4	2	1	60	14
Tuberculosis	6	20	16	200	225

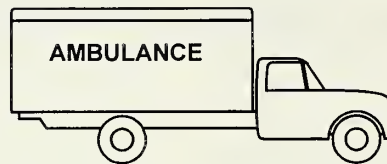
NR Not reportable

* 1997 data (except STD) are provisional

For a listing of reportable diseases in Arkansas,
call the Arkansas Department of Health, Division of Epidemiology, at (501) 661-2893.

Do you need to reach medical professionals in Arkansas?

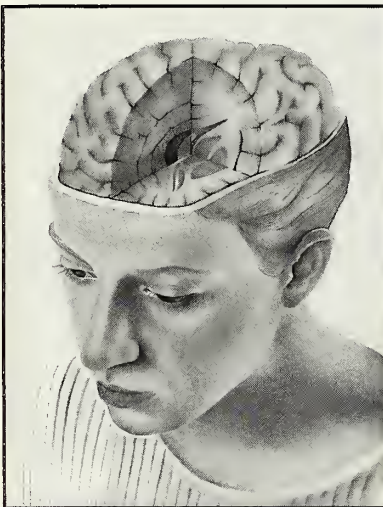
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- *UAMS full time biomedical graphic artist, 1994-1995
- *University of Rochester School of Medicine, human gross anatomy lecture and full cadaver dissection, 1996-1997
- *Strong Memorial Hospital, observation and illustration of surgical procedures, 1996-1997
- *Rochester Institute of Technology, graduate assistant and instructor, 1996-1997.

Her publication work includes cover illustrations for *The Journal of the Arkansas Medical Society*, November 1997; two illustrations demonstrating the proper method for tick removal in *Seminars in Pediatric Infectious Diseases*, April 1994; and an illustration demonstrating how asthma is triggered in the classroom in *Pediatric Nursing*, March 1994.

**If you need a medical illustrator,
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Baka, John Vincent, Obstetrics/Gynecology. Medical Education, UAMS, 1992. Internship/Residency, West Virginia University School of Medicine, Morgantown, 1993/1996. Board eligible.

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Hejmej, Ryszarda Malgorzata, Internal Medicine. Medical Education, Medical Academy of Gdansk, Poland, 1981. Internship, Poland, 1982. Residency, Illinois Masonic Medical Center, 1997. Board certified.

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Day, James Allen, Cardiothoracic Surgery. Medical Education, University of Texas Medical Branch, Galveston, 1987. Internship/Residency, Baylor University Medical Center, 1988/1993. Fellowship, UAMS, 1997. Board certified.

Mego, David M., Cardiovascular Disease. Medical Education, Harvard Medical School, Boston, Massachusetts, 1986. Internship/Residency, Brooke Army Medical Center, 1987/1989. Board certified.

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PINE BLUFF

Carreon, Maria Jocelyn, Internal Medicine/Infectious Diseases. Medical Education, University of the Philippines, Manila, 1983. Internship/Residency, State University of New York Health Science Center, Brooklyn, 1989/1991. Board certified.

Wright, Steven Howard, Internal Medicine/Nephrology. Medical Education, Meharry Medical College, Nashville, Tennessee, 1983. Internship, Highland General Hospital, 1984. Residency, University of Washington, Spokane, 1995. Board certified.

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Rains, Jeffrey, Psychiatry. Medical Education, University of Kansas School of Medicine, Wichita, 1993. Internship/Residency, UAMS, 1994/1997.

Riddick, Robert Steven, Cardiac Surgery. Medical Education, Brown University of Biological-Medical Sciences, Providence, Rhode Island, 1984. Internship/Residency, Naval Hospital, Oakland, 1985/1990. Additional Residency, George Washington University, 1994.

TEXARKANA

Adebogun, Oladele Adepitan, Psychiatry. Medical Education, Ogun State University, Nigeria, 1989. Internship/Residency, Baylor College of Medicine, Houston, Texas, 1995/1998.

WEST MEMPHIS

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Moissidis, Ioannis A., Pediatrics. Medical Education, University of Patras Medical School, Greece, 1991. Internship/Residency, Schneider Children's Hospital, New York, 1994/1997. Board certified.

RESIDENTS

Puschett, Mitchell I., Anesthesia. Medical Education, University of Pennsylvania School of Medicine, Philadelphia, 1992. Residency, Chicago, Illinois, 1997. Fellowship, Arkansas Children's Hospital, 1998.

Razmi, Syed Salman, Pulmonary & Critical Care. Medical Education, Dow Medical College, Karachi, Pakistan, 1989. Internship/Residency, Wright State University School of Medicine, Dayton, Ohio, 1993/1995.

Savcenko, Michal, Cardiothoracic Surgery. Medical Education, Komenius University, Bratislava, Slovakia, Europe, 1987. Residency, Mayo Medical School of Medicine, Rochester, Minnesota, 1997. Fellowship, UAMS.

Things To Come

June 12 - 14, 1998

ARKANSAS LOCATION

Alumni Weekend '98. Little Rock, Arkansas. Sponsored by the Arkansas Caduceus Club. For all University of Arkansas Medical School graduates in the classes of 1933, '38, '43, '48, '53, '58, '63, '68, '73, '78, '83, '88. For more information, call 501-686-6684.

June 23, 1998 - July 5, 1998

American Medicine in a Critical Perspective - A 12-Day Study Cruise on ms Rotterdam VI. Cruising the Norwegian Fjords to North Cape with featured speaker Dr. C. Everett Koop. Sponsored jointly by the Florida Medical Association and Continuing Education, Inc. For more information, call 1-800-926-3775.

June 26 - 28, 1998

12th Annual Frontiers in Endourology - Retrograde Intrarenal Surgery, Ureteroscopy, Stents and Other Minimally Invasive Techniques: Nonincisional Access to the Entire Urinary Tract. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

July 17 - 18, 1998

Clinical Allergy for the Practicing Physician. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

July 26 - 29, 1998

The Seventh National Alzheimer's Disease Education Conference: Creating Opportunities, Making Connections. Indianapolis Convention Center, Indianapolis, Indiana. Sponsored by the National Alzheimer's Association and the Central Indiana Chapter of the Association. For more information, call 312-335-5790.

October 1 - 3, 1998

Contemporary Cardiothoracic Surgery. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

October 14 - 18, 1998

1998 Infectious Disease Board Review: A Comprehensive Review for Board Preparation. Ritz-Carlton Hotel, Tysons Corner, McLean, Virginia. For more information, call the Center for Bio-Medical Communication, Inc., at 201-385-8080, extension 26.

October 15 - 16, 1998

24th Annual Symposium on Obstetrics & Gynecology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

October 17, 1998

Urinary Incontinence and Female Urology. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

October 30 - 31, 1998

3rd Annual Fingers to Toes: Comprehensive Orthopaedic Review Course for Primary Care Physicians. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

December 12, 1998

Contemporary Management of Acute Myocardial Infarction. Washington University Medical Center, St. Louis, Missouri. Sponsored by the Office of Continuing Medical Education, Washington University School of Medicine. For more information, call 314-362-6891 or 1-800-325-9862.

Arkansas Foundation for Medical Care 1998 Quarterly Video Conferences:

Video conferences, Third Thursday of the month, once a quarter. Time: 12 noon to 1:30 p.m. Dates: August 20 and November 19. Location: UAMS education building/AHECs and Rural Hospital Affiliates. For more information, contact Patricia Williams or Cindy Jones at 501-649-8501, ext. 203.

Keeping Up

May 21, 1998

The Diamond Conference - Arkansas Children's Hospital, Chairman's Hall, Little Rock. Sponsored by UAMS College of Medicine. For more information, call (501) 661-7962.

May 22, 1998

18th Annual Resident & Alumni Day - Jones Eye Institute, UAMS, Little Rock. Sponsored by UAMS College of Medicine. For more information, call (501) 661-7962.

June 5 - 7, 1998

20th Annual Family Practice Intensive Review Course - UAMS Education II and III Buildings. Sponsored by UAMS Department of Family and Community Medicine and the Office of Continuing Medical Education. For more information, call (501) 661-7962.

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The following organizations are accredited by the Arkansas Medical Society to sponsor continuing medical education for physicians. The organizations named designate these continuing medical education activities for the credit hours specified in Category 1 of the Physician's Recognition Award of the American Medical Association.

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Medical Grand Rounds/General Medical Topics, Thursdays, 12:00 noon, Auditorium, Bldg. 3

FAYETTEVILLE-WASHINGTON REGIONAL MEDICAL CENTER

Chest Conference, 1st Wednesday of every month, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Primary Care Conferences, every Monday, 12:15 - 1:15 p.m., WRMC, Baker Conference Center, no fee, lunch provided
Tumor Conference, every Thursday, 7:30 - 8:30 a.m., WRMC, Baker Conference Center, no fee, breakfast provided

HARRISON-NORTH ARKANSAS MEDICAL CENTER

Cancer Conference, 4th Thursday, 12:00 noon, Conference Room

LITTLE ROCK-ST. VINCENT INFIRMARY MEDICAL CENTER

Cancer Conferences, Thursdays, 12:00 noon, Southwestern Bell/Arkla room. Lunch provided.
General Surgery Grand Rounds, 1st Thursday, 7:00 a.m. Southwestern Bell/Arkla Room. Light breakfast provided.
Interdisciplinary AIDS Conference, 2nd Friday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Journal Club, Tuesdays, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.
Pulmonary Conference, 4th Wednesday, 12:00 noon, Southwestern Bell/Arkla Room. Lunch provided.

LITTLE ROCK-BAPTIST MEDICAL CENTER

Breast Conference, 3rd Thursday, 7:00 a.m., J.A. Gilbreath Conference Center
Gastroenterology/Surgery Journal Club, dates vary, AR Gastroenterology Memorial Medical Plaza, Suite 3A. Call 501- 202-2673 or 202-3888 for more information.
G.I. Problems Conference, 3rd Tuesday every other month beginning in April, 6:30 to 8:00 p.m., Shuffield Auditorium
Grand Rounds Conference, Wednesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Multidisciplinary Trauma Conference, 3rd Thursday each month, 5:00 to 6:00 p.m., location varies, call 501-202-2673 or 202-1406.
Pulmonary Conference, Tuesdays, 12:00 noon, Shuffield Auditorium. Lunch provided.
Sleep Disorders Case Conference, Twice monthly, 12:00 noon. Call BMC ext. 2673 for dates and location. Lunch provided.

MOUNTAIN HOME-BAXTER COUNTY REGIONAL HOSPITAL

Lecture Series, 3rd Tuesday, 6:30 p.m., Education Building
Tumor Conference, Tuesdays, 12:00 noon, Carti Boardroom

The University of Arkansas College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to sponsor the following continuing medical education activities for physicians. The Office of Continuing Medical Education designates that these activities meet the criteria for credit hours in category 1 toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

LITTLE ROCK-ARKANSAS CHILDREN'S HOSPITAL

Faculty Resident Seminar, 3rd Thursday, 12:00 noon, Sturgis Auditorium
Genetics Conference, Wednesdays, 1:30 p.m., Conference Room, Springer Building
Infectious Disease Conference, 2nd Wednesday, 12:00 noon, 2nd Floor Classroom

Pediatric Grand Rounds, Tuesdays, 8:00 a.m., Sturgis Bldg., Auditorium
Pediatric Neuroscience Conference, 1st Thursday, 8:00 a.m., 2nd Floor Classroom
Pediatric Pharmacology Conference, 5th Wednesday, 12:00 noon, 2nd Classroom
Pediatric Research Conference, 1st Thursday, 12:00 noon, 2nd Floor Classroom

LITTLE ROCK-UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES

ACRC Multi-Disciplinary Cancer Conference (Tumor Board), Wednesdays, 12:00 noon, ACRC 2nd floor Conference Room.
Anesthesia Grand Rounds/M&M Conference, Tuesdays, 6:00 a.m., UAMS Education III Bldg., Room 0219.
Autopsy Pathology Conference, Wednesdays, 8:30 a.m., VAMC-LR Autopsy Room.
Cardiology-Cardiovascular & Thoracic Surgery Conference, Wednesdays, 11:45 a.m., UAMS, Shorey Bldg., room 3S/06
Cardiology Grand Rounds, 2nd & 4th Mondays, 4:00 p.m., UAMS Shorey Bldg., 3S/06
Cardiology Morning Report, every morning, 7:30 a.m., UAMS, Shorey Bldg. room 3S/07
Cardiothoracic Surgery M&M Conference, 2nd Saturday each month, 8:00 a.m., UAMS, Shorey Bldg. room 2S/08
CARTI/Searcy Tumor Board Conference, 2nd Wednesday, 12:30 p.m., CARTI Searcy, 405 Rodgers Drive, Searcy.
Centers for Mental Healthcare Research Conference, 1st & 3rd Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr.
CORE Research Conference, 2nd & 4th Wednesday each month, 4:00 p.m., UAMS, Child Study Ctr., 1st floor auditorium
Endocrinology Grand Rounds, Fridays, 12:00 noon, ACRC Bldg., Sam Walton Auditorium, 10th floor
Gastroenterology Grand Rounds, Thursdays, 4:00 p.m., UAMS Hospital, room 3D29 (1st Thurs. at ACH)
Gastroenterology Pathology Conference, 4:00 p.m., 1st Tuesday each month, UAMS Hospital
GI/Radiology Conference, Tuesdays, 8:00 a.m., UAMS Hospital, room 3D29
In-Vitro Fertilization Case Conference, 2nd & 4th Wednesdays each month, 11:00 a.m., Freeway Medical Tower, Suite 502 Conf. rm
Medical/Surgical Chest Conference, each Monday, 4:00 p.m., UAMS Hospital, room M1/293
Medicine Grand Rounds, Thursdays, 12:00 noon, UAMS Education II Bldg., room 0131
Medicine Research Conference, one Wednesday each month, 4:30 p.m. UAMS Education II Bldg. room 0131A
Neuropathology Conference, 2nd Wednesday each month, 4:00 p.m., AR State Crime Lab, Medical Examiner's Office
Neurosurgery, Neuroradiology & Neuropathology Case Presentations, Thursdays, 4:00 p.m., UAMS Hospital OB/GYN Fetal Boards, 2nd Fridays, 8:00 a.m., ACH Sturgis Bldg.
OB/GYN Grand Rounds, Wednesdays, 7:45 a.m., UAMS Education II Bldg., room 0141A
Ophthalmology Problem Case Conference, Thursdays, 4:00 p.m., UAMS Jones Eye Institute, 2 credit hours
Orthopaedic Basic Science Conference, Tuesdays, 7:30 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Bibliography Conference, Tuesdays, Jan. - Oct., 7:30 a.m., UAMS Education II Bldg.
Orthopaedic Fracture Conference, Tuesdays, 9:00 a.m., UAMS Education II Bldg., room B/107
Orthopaedic Grand Rounds, Tuesdays, 10:00 a.m., UAMS Education II Bldg., room B/107
Otolaryngology Grand Rounds, 2nd Saturday each month, 9:00 a.m., UAMS Biomedical Research Bldg., room 205
Otolaryngology M&M Conference, each Monday, 5:30 p.m., UAMS Otolaryngology Conf. room
Perinatal Care Grand Rounds, every Tuesday, 12:15 p.m., BMC, 2nd floor Conf. room
Psychiatry Grand Rounds, Fridays, 11:00 a.m., UAMS Child Study Center Auditorium
Surgery Grand Rounds, Tuesdays, 8:00 a.m., ACRC Betsy Blass Conf.
Surgery Morbidity & Mortality Conference, Tuesdays, 7:00 a.m., ACRC Betsy Blass conference room, 2nd floor
NLRVA Geriatric/Medicine Grand Rounds, Thursdays, 8:00 a.m., VAMC-NLR, Bldg 68, room 130
VA Medical Service Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D109
VA Pathology-Hematology/Oncology-Radiology Patient Problem Conference, Thursdays, 8:15 a.m., VAMC-LR, room 2E142
VA Psychiatry Difficult Case Conference, 4th Monday, 12:00 noon, VAMC-NLR, Mental Health Clinic
VA Lung Cancer Conference, Thursdays, 3:00 p.m., VAMC-LR, room 2E142
VA Medical Service Teaching Conference, Thursdays, 8:00 a.m., VAMC-NLR, Bldg. 68 room 130
VA Medicine-Pathology Conference, Tuesday, 2:00 p.m., VAMC-LR, room 2D109
VA Medicine Resident's Clinical Case Conference, Fridays, 12:00 noon, VAMC-LR, room 2D08
VA Physical Medicine & Rehab Grand Rounds, 4th Friday, 11:30 a.m., VAMC-NLR Bldg. 68, room 118 or Baptist Rehab Institute
VA Surgery Grand Rounds, Thursdays, 12:45 p.m., VAMC-LR, room 2D109, 1.25 credit hours
VA Topics in Rehabilitation Medicine Conference, 2nd, 3rd, & 4th Thursdays, 8:00 a.m., VAMC-NLR Bldg. 68, room 118
VA Weekly Cancer Conference, Monday, 3:00 p.m., VAMC-LR, room 2E-142
White County Memorial Hospital Medical Staff Program, once monthly, dates & times vary, White County Memorial Hospital, Searcy

EL DORADO-AHEC

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., Warner Brown Campus, 6th floor Conf. Rm.
Behavioral Sciences Conference, 1st & 4th Friday, 12:15 p.m., AHEC - South Arkansas
Chest Conference, 3rd Wednesday, 12:15 p.m., Union Medical Campus, Conf. Rm. #3. Lunch provided.
Dermatology Conference, 1st Tuesdays and 1st Thursdays, AHEC - South Arkansas
GYN Conference, 2nd Friday, 12:15 p.m., AHEC-South Arkansas
Internal Medicine Conference, 1st, 2nd & 4th Wednesday, 12:15 p.m., AHEC-South Arkansas
Noon Lecture Series, 2nd & 4th Thursday, 12:00 noon, Union Medical Campus, Conf. Rm. #3. Lunch provided.
Pathology Conference, 2nd Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5. Lunch provided.
Pediatric Conference, 3rd Friday, 12:15 p.m., AHEC - South Arkansas
Pediatric Case Presentation, 3rd Tuesday, 3rd Friday, AHEC - South Arkansas

Arkansas Children's Hospital Pediatric Grand Rounds, every Tuesday, 8:00 a.m., AHEC - South Arkansas (Interactive video)
Pathology Conference, 2nd Tuesday, 12:15 p.m., AHEC - South Arkansas
Obstetrics-Gynecology Conference, 4th Thursday, 12:15 p.m., AHEC - South Arkansas
Surgical Conference, 1st, 2nd & 3rd Monday, 12:15 p.m., AHEC - South Arkansas
Tumor Clinic, 4th Tuesday, 12:15 p.m., Warner Brown Campus, Conf. Rm. #5, Lunch provided.
VA Hematology/Oncology Conference, Thursdays, 8:15 a.m., VAMC-LR Pathology conference room 2E142

FAYETTEVILLE-AHEC NORTHWEST

AHEC Teaching Conferences, Tuesdays & Wednesdays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Fridays, 12:00 noon, AHEC Classroom
AHEC Teaching Conferences, Thursdays, 7:30 a.m., AHEC Classroom
Medical/Surgical Conference Series, 4th Tuesday, 12:30, Bates Medical Center, Bentonville

FORT SMITH-AHEC

Grand Rounds, 12:00 noon, first Wednesday of each month, Sparks Regional Medical Center
Neuroradiology Conference, 1st Tuesday of each month, 12:00 noon, Sparks Regional Medical Center, 7th floor dining room
Neuroscience & Spine Conference, 3rd Wednesday each month, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Mondays, 12:00 noon, St. Edward Mercy Medical Center
Tumor Conference, Wednesdays, 12:00 noon, Sparks Regional Medical Center

JONESBORO-AHEC NORTHEAST

AHEC Lecture Series, 1st & 3rd Tuesday, 12:00 noon, Stroud Hall, St. Bernard's Regional Medical Center. Lunch provided.
Arkansas Methodist Hospital CME Conference, 7:30 a.m., Hospital Cafeteria, Arkansas Methodist Hospital, Paragould
Chest Conference, 2nd Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Citywide Cardiology Conference, 3rd Thursday, 7:30 p.m., Jonesboro Holiday Inn
Clinical Faculty Conference, 5th Tuesday, St. Bernard's Regional Medical Center, Dietary Conference Room, lunch provided
Craighead/Poinsett Medical Society, 1st Tuesday, 7:00 p.m. Jonesboro Country Club
Greenleaf Hospital CME Conference, monthly, 12:00 noon, Greenleaf Hospital Conference Room. Lunch provided.
Independence County Medical Society, 2nd Tuesday, 6:30 p.m., Batesville Country Club, Batesville
Interesting Case Conference, 4th Tuesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Jackson County Medical Society, 3rd Thursday, 7:00 p.m., Newport Country Club, Newport
Kennett CME Conference, 3rd Monday, 12:00 noon, Twin Rivers Hospital Cafeteria, Kennett, MO
Methodist Hospital of Jonesboro Cardiology Conference, every other month, 7:00 p.m., alternating between Methodist Hospital Conference Room and St. Bernard's, Stroud Hall. Meal provided.
Methodist Hospital of Jonesboro CME Conference, 2nd Tuesday, 7:00 p.m., Cafeteria, Methodist Hospital of Jonesboro
Neuroscience Conference, 3rd Monday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch Provided.
Orthopedic Case Conferences, every other month beginning in January, 7:30 a.m., Northeast Arkansas Rehabilitation Hospital
Perinatal Conference, 2nd Wednesday, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Piggott CME Conference, 3rd Thursday, 6:00 p.m., Piggott Hospital. Meal provided.
Pocahontas CME Conference, 3rd Wednesday, 12:00 noon & 7:30 p.m., Randolph County Medical Center Boardroom
Tumor Conference, Thursdays, 12:00 noon, St. Bernard's Dietary Conference Room. Lunch provided.
Walnut Ridge CME Conference, 3rd & last Tuesday, 12:00 noon, Lawrence Memorial Hospital Cafeteria
White River CME Conference, 3rd Thursday, 12:00 noon, White River Medical Center Hospital Boardroom

PINE BLUFF-AHEC

Behavioral Science Conference, 1st & 3rd Thursday, 12:00 noon, Jefferson Regional Medical Center
Chest Conference, 2nd & 4th Friday, 12:00 noon, Jefferson Regional Medical Center
FP Journal Club, 2nd Monday, 12:00 noon, Jefferson Regional Medical Center
Internal Medicine Conference, 2nd & 4th Thursdays, 12:00 noon, Jefferson Regional Medical Center
Obstetrics/Gynecology Conference, 2nd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Orthopedic Case Conference, 2nd & 4th Wednesdays, 12:00 noon, Jefferson Regional Medical Center.
Pediatric Conference, 3rd Wednesday, 12:00 noon, Jefferson Regional Medical Center
Radiology Conference, 3rd Tuesday, 12:00 noon, Jefferson Regional Medical Center
Southeast Arkansas Medical Lecture Series, 4th Tuesday, 6:30 p.m., Locations vary. Dinner meeting.
Tumor Conference, 1st Wednesday & 3rd Friday, 12:00 noon, Jefferson Regional Medical Center

TEXARKANA-AHEC SOUTHWEST

Chest Conference, every other 3rd Tuesday/quarterly, 12:00 noon, St. Michael Health Care Center
Neuro-Radiology Conference, 1st Thursday every month at St. Michael Health Care Center and 3rd Thursday of every month at Wadley Regional Medical Center, 12:00 noon.
Residency Noon Conference, Monday, Wednesday, Thursday, Friday each week, alternates between St. Michael Health Care Center & Wadley Regional Medical Center
Tumor Board, Fridays, except 5th Friday, 12:00 noon, Wadley Regional Medical Center & St. Michael Hospital
Tumor Conference, every 5th Friday, 12:00 noon alternates between Wadley Regional Medical Center & St. Michael Hospital

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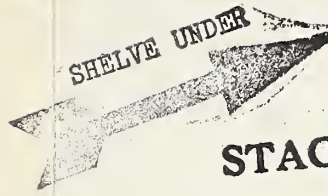
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ARKANSAS MEDICAL SOCIETY

October 6, 1997



JOURNAL OF THE
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(SUPPLEMENT)

Dear Colleague:

Starting **January 1, 1998**, Medicare will begin using a new set of guidelines to review coding of the evaluation and management services virtually all of us provide. While these new guidelines were not meant to dictate how or what physicians must document, it is clear that they will be used to determine whether services have been properly coded and whether refunds, civil monetary penalties and other sanctions are warranted.

Medicare is not distributing these new guidelines to physicians, supposedly for budgetary reasons. Because of their importance, your Arkansas Medical Society is providing you with this special supplement to the *Journal of the Arkansas Medical Society*.

The guidelines were developed jointly by the Health Care Financing Administration (HCFA) and the American Medical Association through their CPT Editorial Committee. They are intended to represent clear, consistent advice on what criteria Medicare carriers will use to ensure that documentation in the medical record is consistent with the level of evaluation and management service billed to the carrier.

I urge you and your staff to study the new guidelines carefully and implement them into your practice as quickly as possible. Additionally, the Arkansas Medical Society is scheduling educational seminars on the guidelines for the month of December. Information on these will be mailed shortly.

Sincerely,

Charles Logan, MD
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FOREWORD

These guidelines have been developed jointly by the American Medical Association (AMA) and the Health Care Financing Administration (HCFA). Our mutual goal is to provide physicians and claims reviewers with advice about preparing or reviewing documentation for Evaluation and Management services. In developing and testing the validity of these guidelines, special emphasis was placed on assuring that they:

- are consistent with the clinical descriptors and definitions contained in CPT,
- would be widely accepted by clinicians and minimize any changes in record-keeping practices, and
- would be interpreted and applied uniformly by users across the country.

This edition contains a substantial amount of new material and a number of significant revisions in material that appeared in the first edition. Because of the extensive changes, the section on examination which begins on page 10 should be read in its entirety. In this edition:

- The content of general multi-system examinations has been defined with greater clinical specificity.
- Documentation requirements for general multi-system examinations have been changed.
- For the first time, content and documentation requirements have been defined for examinations pertaining to ten organ systems. The content of these examinations was developed with the assistance of representatives from the specialties that frequently perform these examinations.
- Several editorial changes have been made in the definitions of the four types of examinations at the top of page 10. This text also appears in CPT itself in the section headed "Evaluation and Management (E/M) Services Guidelines," but the revisions will not appear there until the 1999 edition of CPT.
- The definition of an extended history of present illness on page 7 has been expanded to include information about chronic or inactive conditions.

The AMA and HCFA wish to thank the CPT Editorial Panel, the CPT Advisory Committees, the Practicing Physicians Advisory Council, and the Medicare Contractor Medical Directors for their thoughtful advice, comments and direction concerning the many complex issues that were addressed in the development of these guidelines. The AMA and HCFA are committed to continually improving these guidelines and welcome comments based on their usage.

DOCUMENTATION GUIDELINES FOR EVALUATION AND MANAGEMENT SERVICES

I. INTRODUCTION

WHAT IS DOCUMENTATION AND WHY IS IT IMPORTANT?

Medical record documentation is required to record pertinent facts, findings, and observations about an individual's health history including past and present illnesses, examinations, tests, treatments, and outcomes. The medical record chronologically documents the care of the patient and is an important element contributing to high quality care. The medical record facilitates:

- the ability of the physician and other health care professionals to evaluate and plan the patient's immediate treatment, and to monitor his/her health care over time.
- communication and continuity of care among physicians and other health care professionals involved in the patient's care;
- accurate and timely claims review and payment;
- appropriate utilization review and quality of care evaluations; and
- collection of data that may be useful for research and education.

An appropriately documented medical record can reduce many of the "hassles" associated with claims processing and may serve as a legal document to verify the care provided, if necessary.

WHAT DO PAYERS WANT AND WHY?

Because payers have a contractual obligation to enrollees, they may require reasonable documentation that services are consistent with the insurance coverage provided. They may request information to validate:

- the site of service;
- the medical necessity and appropriateness of the diagnostic and/or therapeutic services provided; and/or
- that services provided have been accurately reported.

II. GENERAL PRINCIPLES OF MEDICAL RECORD DOCUMENTATION

The principles of documentation listed below are applicable to all types of medical and surgical services in all settings. For Evaluation and Management (E/M) services, the nature and amount of physician work and documentation varies by type of service, place of service and the patient's status. The general principles listed below may be modified to account for these variable circumstances in providing E/M services.

1. The medical record should be complete and legible.
2. The documentation of each patient encounter should include:
 - reason for the encounter and relevant history, physical examination findings and prior diagnostic test results;

- assessment, clinical impression or diagnosis;
 - plan for care; and
 - date and legible identity of the observer.
3. If not documented, the rationale for ordering diagnostic and other ancillary services should be easily inferred.
 4. Past and present diagnoses should be accessible to the treating and/or consulting physician.
 5. Appropriate health risk factors should be identified.
 6. The patient's progress, response to and changes in treatment, and revision of diagnosis should be documented.
 7. The CPT and ICD-9-CM codes reported on the health insurance claim form or billing statement should be supported by the documentation in the medical record.

III. DOCUMENTATION OF E/M SERVICES

This publication provides definitions and documentation guidelines for the three key components of E/M services and for visits which consist predominately of counseling or coordination of care. The three *key* components--history, examination, and medical decision making--appear in the descriptors for office and other outpatient services, hospital observation services, hospital inpatient services, consultations, emergency department services, nursing facility services, domiciliary care services, and home services. While some of the text of CPT has been repeated in this publication, the reader should refer to CPT for the complete descriptors for E/M services and instructions for selecting a level of service. Documentation guidelines are identified by the symbol *DG*.

The descriptors for the levels of E/M services recognize seven components which are used in defining the levels of E/M services. These components are:

- history;
- examination;
- medical decision making;
- counseling;
- coordination of care;
- nature of presenting problem; and
- time.

The first three of these components (i.e., history, examination and medical decision making) are the key components in selecting the level of E/M services. In the case of visits which consist predominantly of counseling or coordination of care, time is the key or controlling factor to qualify for a particular level of E/M service.

Because the level of E/M service is dependent on two or three key components, performance and documentation of one component (eg, examination) at the highest level does not necessarily mean that the encounter in its entirety qualifies for the highest level of E/M service.

These Documentation Guidelines for E/M services reflect the needs of the typical adult population. For certain groups of patients, the recorded information may vary slightly from that described here. Specifically, the medical records of infants, children, adolescents and pregnant women may have additional or modified information recorded in each history and examination area.

As an example, newborn records may include under history of the present illness (HPI) the details of mother's pregnancy and the infant's status at birth; social history will focus on family structure; family history will focus on congenital anomalies and hereditary disorders in the family. In addition, the content of a pediatric examination will vary with the age and development of the child. Although not specifically defined in these documentation guidelines, these patient group variations on history and examination are appropriate.

A. DOCUMENTATION OF HISTORY

The levels of E/M services are based on four types of history (Problem Focused, Expanded Problem Focused, Detailed, and Comprehensive). Each type of history includes some or all of the following elements:

- Chief complaint (CC);
- History of present illness (HPI);
- Review of systems (ROS); and

Past, family and/or social history (PFSH).

The extent of history of present illness, review of systems and past, family and/or social history that is obtained and documented is dependent upon clinical judgement and the nature of the presenting problem(s).

The chart below shows the progression of the elements required for each type of history. To qualify for a given type of history **all three elements in the table must be met**. (A chief complaint is indicated at all levels.)

History of Present Illness (HPI)	Review of Systems (ROS)	Past, Family, and/or Social History (PFSH)	Type of History
Brief	N/A	N/A	<i>Problem Focused</i>
Brief	Problem Pertinent	N/A	<i>Expanded Problem Focused</i>
Extended	Extended	Pertinent	<i>Detailed</i>
Extended	Complete	Complete	<i>Comprehensive</i>

- DG:** *The CC, ROS and PFSH may be listed as separate elements of history, or they may be included in the description of the history of the present illness.*
- DG:** *A ROS and/or a PFSH obtained during an earlier encounter does not need to be re-recorded if there is evidence that the physician reviewed and updated the previous information. This may occur when a physician updates his or her own record or in an institutional setting or group practice where many physicians use a common record. The review and update may be documented by:*
 - *describing any new ROS and/or PFSH information or noting there has been no change in the information; and*
 - *noting the date and location of the earlier ROS and/or PFSH.*
- DG:** *The ROS and/or PFSH may be recorded by ancillary staff or on a form completed by the patient. To document that the physician reviewed the information, there must be a notation supplementing or confirming the information recorded by others.*
- DG:** *If the physician is unable to obtain a history from the patient or other source, the record should describe the patient's condition or other circumstance which precludes obtaining a history.*

Definitions and specific documentation guidelines for each of the elements of history are listed below.

CHIEF COMPLAINT (CC)

The CC is a concise statement describing the symptom, problem, condition, diagnosis, physician recommended return, or other factor that is the reason for the encounter, usually stated in the patient's words.

- DG:** *The medical record should clearly reflect the chief complaint.*

HISTORY OF PRESENT ILLNESS (HPI)

The HPI is a chronological description of the development of the patient's present illness from the first sign and/or symptom or from the previous encounter to the present. It includes the following elements:

- location,
- quality,
- severity,
- duration,
- timing,
- context,
- modifying factors, and
- associated signs and symptoms.

Brief and *extended* HPIs are distinguished by the amount of detail needed to accurately characterize the clinical problem(s).

A *brief* HPI consists of one to three elements of the HPI.

- DG:** *The medical record should describe one to three elements of the present illness (HPI).*

An *extended* HPI consists of at least four elements of the HPI or the status of at least three chronic or inactive conditions.

- DG:** *The medical record should describe at least four elements of the present illness (HPI), or the status of at least three chronic or inactive conditions.*

REVIEW OF SYSTEMS (ROS)

A ROS is an inventory of body systems obtained through a series of questions seeking to identify signs and/or symptoms which the patient may be experiencing or has experienced.

For purposes of ROS, the following systems are recognized:

- Constitutional symptoms (e.g., fever, weight loss)
- Eyes
- Ears, Nose, Mouth, Throat
- Cardiovascular
- Respiratory
- Gastrointestinal
- Genitourinary
- Musculoskeletal
- Integumentary (skin and/or breast)
- Neurological
- Psychiatric
- Endocrine
- Hematologic/Lymphatic
- Allergic/Immunologic

A *problem pertinent* ROS inquires about the system directly related to the problem(s) identified in the HPI.

- DG:** *The patient's positive responses and pertinent negatives for the system related to the problem should be documented.*

An *extended* ROS inquires about the system directly related to the problem(s) identified in the HPI and a limited number of additional systems.

- DG:** *The patient's positive responses and pertinent negatives for two to nine systems should be documented.*

A *complete* ROS inquires about the system(s) directly related to the problem(s) identified in the HPI *plus* all additional body systems.

- DG:** *At least ten organ systems must be reviewed. Those systems with positive or pertinent negative responses must be individually documented. For the remaining systems, a notation indicating all other systems are negative is permissible. In the absence of such a notation, at least ten systems must be individually documented.*

PAST, FAMILY AND/OR SOCIAL HISTORY (PFSH)

The PFSH consists of a review of three areas:

- past history (the patient's past experiences with illnesses, operations, injuries and treatments);
- family history (a review of medical events in the patient's family, including diseases which may be hereditary or place the patient at risk); and
- social history (an age appropriate review of past and current activities).

For certain categories of E/M services that include only an interval history, it is not necessary to record information about the PFSH. Those categories are subsequent hospital care, follow-up inpatient consultations and subsequent nursing facility care.

A **pertinent** PFSH is a review of the history area(s) directly related to the problem(s) identified in the HPI.

- DG:** *At least one specific item from **any** of the three history areas must be documented for a pertinent PFSH .*

A **complete** PFSH is of a review of two or all three of the PFSH history areas, depending on the category of the E/M service. A review of all three history areas is required for services that by their nature include a comprehensive assessment or reassessment of the patient. A review of two of the three history areas is sufficient for other services.

- DG:** *At least one specific item from **two** of the three history areas must be documented for a complete PFSH for the following categories of E/M services: office or other outpatient services, established patient; emergency department; domiciliary care, established patient; and home care, established patient.*
- DG:** *At least one specific item from **each** of the three history areas must be documented for a complete PFSH for the following categories of E/M services: office or other outpatient services, new patient; hospital observation services; hospital inpatient services, initial care; consultations; comprehensive nursing facility assessments; domiciliary care, new patient; and home care, new patient.*

B. DOCUMENTATION OF EXAMINATION

The levels of E/M services are based on four types of examination:

- *Problem Focused* -- a limited examination of the affected body area or organ system.
- *Expanded Problem Focused* -- a limited examination of the affected body area or organ system and any other symptomatic or related body area(s) or organ system(s).
- *Detailed* -- an extended examination of the affected body area(s) or organ system(s) and any other symptomatic or related body area(s) or organ system(s).
- *Comprehensive* -- a general multi-system examination, or complete examination of a single organ system and other symptomatic or related body area(s) or organ system(s).

These types of examinations have been defined for general multi-system and the following single organ systems:

- Cardiovascular
- Ears, Nose, Mouth and Throat
- Eyes
- Genitourinary (Female)
- Genitourinary (Male)
- Hematologic/Lymphatic/Immunologic
- Musculoskeletal
- Neurological
- Psychiatric
- Respiratory
- Skin

A general multi-system examination or a single organ system examination may be performed by any physician regardless of specialty. The type (general multi-system or single organ system) and content of examination are selected by the examining physician and are based upon clinical judgement, the patient's history, and the nature of the presenting problem(s).

The content and documentation requirements for each type and level of examination are summarized below and described in detail in tables beginning on page 13. In the tables, organ systems and body areas recognized by CPT for purposes of describing examinations are shown in the left column. The content, or individual elements, of the examination pertaining to that body area or organ system are identified by bullets (·) in the right column.

Parenthetical examples, “(eg, ...)”, have been used for clarification and to provide guidance regarding documentation. Documentation for each element must satisfy any numeric requirements (such as “Measurement of *any three of the following seven...*”) included in the description of the element. Elements with multiple components but with no specific numeric requirement (such as “Examination of *liver and spleen*”) require documentation of at least one component. It is possible for a given examination to be expanded beyond what is defined here. When that occurs, findings related to the additional systems and/or areas should be documented.

- DG:** *Specific abnormal and relevant negative findings of the examination of the affected or symptomatic body area(s) or organ system(s) should be documented. A notation of "abnormal" without elaboration is insufficient.*
- DG:** *Abnormal or unexpected findings of the examination of any asymptomatic body area(s) or organ system(s) should be described.*
- DG:** *A brief statement or notation indicating "negative" or "normal" is sufficient to document normal findings related to unaffected area(s) or asymptomatic organ system(s).*

GENERAL MULTI-SYSTEM EXAMINATIONS

General multi-system examinations are described in detail beginning on page 13. To qualify for a given level of multi-system examination, the following content and documentation requirements should be met:

- ***Problem Focused Examination***-should include performance and documentation of **one to five elements** identified by a bullet (·) in one or more organ system(s) or body area(s).
- ***Expanded Problem Focused Examination***-should include performance and documentation of **at least six elements** identified by a bullet (·) in one or more organ system(s) or body area(s).

- **Detailed Examination**--should include at least six organ systems or body areas. For each system/area selected, performance and documentation of at least two elements identified by a bullet (·) is expected. Alternatively, a detailed examination may include performance and documentation of at least twelve elements identified by a bullet (·) in two or more organ systems or body areas.
- **Comprehensive Examination**--should include at least nine organ systems or body areas. For each system/area selected, all elements of the examination identified by a bullet (·) should be performed, unless specific directions limit the content of the examination. For each area/system, documentation of at least two elements identified by a bullet is expected.

SINGLE ORGAN SYSTEM EXAMINATIONS

The single organ system examinations recognized by CPT are described in detail beginning on page 18. Variations among these examinations in the organ systems and body areas identified in the left columns and in the elements of the examinations described in the right columns reflect differing emphases among specialties. To qualify for a given level of single organ system examination, the following content and documentation requirements should be met:

- **Problem Focused Examination**--should include performance and documentation of one to five elements identified by a bullet (·), whether in a box with a shaded or unshaded border.
- **Expanded Problem Focused Examination**--should include performance and documentation of at least six elements identified by a bullet (·), whether in a box with a shaded or unshaded border.
- **Detailed Examination**--examinations other than the eye and psychiatric examinations should include performance and documentation of at least twelve elements identified by a bullet (·), whether in box with a shaded or unshaded border.

Eye and psychiatric examinations should include the performance and documentation of at least nine elements identified by a bullet (·), whether in a box with a shaded or unshaded border.
- **Comprehensive Examination**--should include performance of all elements identified by a bullet (·), whether in a shaded or unshaded box. Documentation of every element in a box with a shaded border and at least one element in a box with an unshaded border is expected.

CONTENT AND DOCUMENTATION REQUIREMENTS

General Multi-System Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none">• Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff)• General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Eyes	<ul style="list-style-type: none">• Inspection of conjunctivae and lids• Examination of pupils and irises (eg, reaction to light and accommodation, size and symmetry)• Ophthalmoscopic examination of optic discs (eg, size, C/D ratio, appearance) and posterior segments (eg, vessel changes, exudates, hemorrhages)
Ears, Nose, Mouth and Throat	<ul style="list-style-type: none">• External inspection of ears and nose (eg, overall appearance, scars, lesions, masses)• Otoscopic examination of external auditory canals and tympanic membranes• Assessment of hearing (eg, whispered voice, finger rub, tuning fork)• Inspection of nasal mucosa, septum and turbinates• Inspection of lips, teeth and gums• Examination of oropharynx: oral mucosa, salivary glands, hard and soft palates, tongue, tonsils and posterior pharynx
Neck	<ul style="list-style-type: none">• Examination of neck (eg, masses, overall appearance, symmetry, tracheal position, crepitus)• Examination of thyroid (eg, enlargement, tenderness, mass)
Respiratory	<ul style="list-style-type: none">• Assessment of respiratory effort (eg, intercostal retractions, use of accessory muscles, diaphragmatic movement)• Percussion of chest (eg, dullness, flatness, hyperresonance)• Palpation of chest (eg, tactile fremitus)

System/Body Area	Elements of Examination
	<ul style="list-style-type: none"> • Auscultation of lungs (eg, breath sounds, adventitious sounds, rubs)
Cardiovascular	<ul style="list-style-type: none"> • Palpation of heart (eg, location, size, thrills) • Auscultation of heart with notation of abnormal sounds and murmurs <p>Examination of:</p> <ul style="list-style-type: none"> • carotid arteries (eg, pulse amplitude, bruits) • abdominal aorta (eg, size, bruits) • femoral arteries (eg, pulse amplitude, bruits) • pedal pulses (eg, pulse amplitude) • extremities for edema and/or varicosities
Chest (Breasts)	<ul style="list-style-type: none"> • Inspection of breasts (eg, symmetry, nipple discharge) • Palpation of breasts and axillae (eg, masses or lumps, tenderness)
Gastrointestinal (Abdomen)	<ul style="list-style-type: none"> • Examination of abdomen with notation of presence of masses or tenderness • Examination of liver and spleen • Examination for presence or absence of hernia • Examination of anus, perineum and rectum, including sphincter tone, presence of hemorrhoids, rectal masses • Obtain stool sample for occult blood test when indicated
Genitourinary	<p>MALE:</p> <ul style="list-style-type: none"> • Examination of the scrotal contents (eg, hydrocele, spermatocele, tenderness of cord, testicular mass) • Examination of the penis • Digital rectal examination of prostate gland (eg, size, symmetry, nodularity, tenderness) <p>FEMALE:</p> <p>Pelvic examination (with or without specimen collection for smears and cultures), including</p> <ul style="list-style-type: none"> • Examination of external genitalia (eg, general appearance, hair distribution, lesions)

System/Body Area	Elements of Examination
	<p>and vagina (eg, general appearance, estrogen effect, discharge, lesions, pelvic support, cystocele, rectocele)</p> <ul style="list-style-type: none"> • Examination of urethra (eg, masses, tenderness, scarring) • Examination of bladder (eg, fullness, masses, tenderness) • Cervix (eg, general appearance, lesions, discharge) • Uterus (eg, size, contour, position, mobility, tenderness, consistency, descent or support) • Adnexa/parametria (eg, masses, tenderness, organomegaly, nodularity)
Lymphatic	<p>Palpation of lymph nodes in two or more areas:</p> <ul style="list-style-type: none"> • Neck • Axillae • Groin • Other
Musculoskeletal	<ul style="list-style-type: none"> • Examination of gait and station • Inspection and/or palpation of digits and nails (eg, clubbing, cyanosis, inflammatory conditions, petechiae, ischemia, infections, nodes) <p>Examination of joints, bones and muscles of one or more of the following six areas: 1) head and neck; 2) spine, ribs and pelvis; 3) right upper extremity; 4) left upper extremity; 5) right lower extremity; and 6) left lower extremity. The examination of a given area includes:</p> <ul style="list-style-type: none"> • Inspection and/or palpation with notation of presence of any misalignment, asymmetry, crepitation, defects, tenderness, masses, effusions • Assessment of range of motion with notation of any pain, crepitation or contracture • Assessment of stability with notation of any dislocation (luxation), subluxation or laxity • Assessment of muscle strength and tone (eg, flaccid, cog wheel, spastic) with notation of any atrophy or abnormal movements
Skin	<ul style="list-style-type: none"> • Inspection of skin and subcutaneous tissue (eg, rashes, lesions, ulcers) • Palpation of skin and subcutaneous tissue (eg, induration, subcutaneous nodules, tightening)

System/Body Area	Elements of Examination
Neurologic	<ul style="list-style-type: none"> • Test cranial nerves with notation of any deficits • Examination of deep tendon reflexes with notation of pathological reflexes (eg, Babinski) • Examination of sensation (eg, by touch, pin, vibration, proprioception)
Psychiatric	<ul style="list-style-type: none"> • Description of patient's judgment and insight <p>Brief assessment of mental status including:</p> <ul style="list-style-type: none"> · orientation to time, place and person · recent and remote memory · mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

At least two elements identified by a bullet **from each of six areas/systems**
OR at least twelve elements identified by a bullet **in two or more**
areas/systems.

Comprehensive

At least two elements identified by a bullet **from each of nine**
areas/systems.

Cardiovascular Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	<ul style="list-style-type: none"> Inspection of conjunctivae and lids (eg, xanthelasma)
Ears, Nose, Mouth and Throat	<ul style="list-style-type: none"> Inspection of teeth, gums and palate Inspection of oral mucosa with notation of presence of pallor or cyanosis
Neck	<ul style="list-style-type: none"> Examination of jugular veins (eg, distension; a, v or cannon a waves) Examination of thyroid (eg, enlargement, tenderness, mass)
Respiratory	<ul style="list-style-type: none"> Assessment of respiratory effort (eg, intercostal retractions, use of accessory muscles, diaphragmatic movement) Auscultation of lungs (eg, breath sounds, adventitious sounds, rubs)
Cardiovascular	<ul style="list-style-type: none"> Palpation of heart (eg, location, size and forcefulness of the point of maximal impact; thrills; lifts; palpable S3 or S4) Auscultation of heart including sounds, abnormal sounds and murmurs Measurement of blood pressure in two or more extremities when indicated (eg, aortic dissection, coarctation) <p>Examination of:</p> <ul style="list-style-type: none"> Carotid arteries (eg, waveform, pulse amplitude, bruits, apical-carotid delay) Abdominal aorta (eg, size, bruits) Femoral arteries (eg, pulse amplitude, bruits) Pedal pulses (eg, pulse amplitude)

System/Body Area	Elements of Examination
	<ul style="list-style-type: none"> Extremities for peripheral edema and/or varicosities
Chest (Breasts)	
Gastrointestinal (Abdomen)	<ul style="list-style-type: none"> Examination of abdomen with notation of presence of masses or tenderness Examination of liver and spleen Obtain stool sample for occult blood from patients who are being considered for thrombolytic or anticoagulant therapy
Genitourinary (Abdomen)	
Lymphatic	
Musculoskeletal	<ul style="list-style-type: none"> Examination of the back with notation of kyphosis or scoliosis Examination of gait with notation of ability to undergo exercise testing and/or participation in exercise programs Assessment of muscle strength and tone (eg, flaccid, cog wheel, spastic) with notation of any atrophy and abnormal movements
Extremities	<ul style="list-style-type: none"> Inspection and palpation of digits and nails (eg, clubbing, cyanosis, inflammation, petechiae, ischemia, infections, Osler's nodes)
Skin	<ul style="list-style-type: none"> Inspection and/or palpation of skin and subcutaneous tissue (eg, stasis dermatitis, ulcers, scars, xanthomas)
Neurological/ Psychiatric	<p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> Orientation to time, place and person, Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Problem Focused

Expanded Problem Focused

Detailed

Perform and Document:

One to five elements identified by a bullet.

At least six elements identified by a bullet.

At least twelve elements identified by a bullet.

Comprehensive

Perform **all** elements identified by a bullet; document every element in a box with a shaded border and at least one element in a box with an unshaded border.

Ear, Nose and Throat Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming) Assessment of ability to communicate (eg, use of sign language or other communication aids) and quality of voice
Head and Face	<ul style="list-style-type: none"> Inspection of head and face (eg, overall appearance, scars, lesions and masses) Palpation and/or percussion of face with notation of presence or absence of sinus tenderness Examination of salivary glands Assessment of facial strength
Eyes	<ul style="list-style-type: none"> Test ocular motility including primary gaze alignment
Ears, Nose, Mouth and Throat	<ul style="list-style-type: none"> Otoscopic examination of external auditory canals and tympanic membranes including pneumo-otoscopy with notation of mobility of membranes Assessment of hearing with tuning forks and clinical speech reception thresholds (eg, whispered voice, finger rub) External inspection of ears and nose (eg, overall appearance, scars, lesions and masses) Inspection of nasal mucosa, septum and turbinates Inspection of lips, teeth and gums Examination of oropharynx: oral mucosa, hard and soft palates, tongue, tonsils and posterior pharynx (eg, asymmetry, lesions, hydration of mucosal surfaces) Inspection of pharyngeal walls and pyriform sinuses (eg, pooling of saliva, asymmetry, lesions) Examination by mirror of larynx including the condition of the epiglottis, false vocal cords, true vocal cords and mobility of larynx (Use of mirror not required in children) Examination by mirror of nasopharynx including appearance of the mucosa, adenoids,

System/Body Area	Elements of Examination
	posterior choanae and eustachian tubes (Use of mirror not required in children)
Neck	<ul style="list-style-type: none"> Examination of neck (eg, masses, overall appearance, symmetry, tracheal position, crepitus) Examination of thyroid (eg, enlargement, tenderness, mass)
Respiratory	<ul style="list-style-type: none"> Inspection of chest including symmetry, expansion and/or assessment of respiratory effort (eg, intercostal retractions, use of accessory muscles, diaphragmatic movement) Auscultation of lungs (eg, breath sounds, adventitious sounds, rubs)
Cardiovascular	<ul style="list-style-type: none"> Auscultation of heart with notation of abnormal sounds and murmurs Examination of peripheral vascular system by observation (eg, swelling, varicosities) and palpation (eg, pulses, temperature, edema, tenderness)
Chest (Breasts)	
Gastrointestinal (Abdomen)	
Genitourinary	
Lymphatic	<ul style="list-style-type: none"> Palpation of lymph nodes in neck, axillae, groin and/or other location
Musculoskeletal	
Extremities	
Skin	
Neurological/ Psychiatric	<ul style="list-style-type: none"> Test cranial nerves with notation of any deficits <p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> Orientation to time, place and person, Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

At least twelve elements identified by a bullet.

Comprehensive

Perform **all** elements identified by a bullet; document every element in a box with a shaded border and at least one element in a box with an unshaded border.

Eye Examination

System/Body Area	Elements of Examination
Constitutional	
Head and Face	
Eyes	<ul style="list-style-type: none"> • Test visual acuity (Does not include determination of refractive error) • Gross visual field testing by confrontation • Test ocular motility including primary gaze alignment • Inspection of bulbar and palpebral conjunctivae • Examination of ocular adnexae including lids (eg, ptosis or lagophthalmos), lacrimal glands, lacrimal drainage, orbits and preauricular lymph nodes • Examination of pupils and irises including shape, direct and consensual reaction (afferent pupil), size (eg, anisocoria) and morphology • Slit lamp examination of the corneas including epithelium, stroma, endothelium, and tear film • Slit lamp examination of the anterior chambers including depth, cells, and flare • Slit lamp examination of the lenses including clarity, anterior and posterior capsule, cortex, and nucleus • Measurement of intraocular pressures (except in children and patients with trauma or infectious disease) <p>Ophthalmoscopic examination through dilated pupils (unless contraindicated) of</p> <ul style="list-style-type: none"> • Optic discs including size, C/D ratio, appearance (eg, atrophy, cupping, tumor elevation) and nerve fiber layer • Posterior segments including retina and vessels (eg, exudates and hemorrhages)
Ears, Nose, Mouth and Throat	
Neck	
Respiratory	

System/Body Area	Elements of Examination
Cardiovascular	
Chest (Breasts)	
Gastrointestinal (Abdomen)	
Genitourinary	
Lymphatic	
Musculoskeletal	
Extremities	
Skin	
Neurological/ Psychiatric	<p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> • Orientation to time, place and person • Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Problem Focused

Expanded Problem Focused

Detailed

Comprehensive

Perform and Document:

One to five elements identified by a bullet.

At least six elements identified by a bullet.

At least nine elements identified by a bullet.

Perform all elements identified by a bullet; document every element in a box with a shaded border and at least one element in a box with an unshaded border.

Genitourinary Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	
Ears, Nose, Mouth and Throat	
Neck	<ul style="list-style-type: none"> Examination of neck (eg, masses, overall appearance, symmetry, tracheal position, crepitus) Examination of thyroid (eg, enlargement, tenderness, mass)
Respiratory	<ul style="list-style-type: none"> Assessment of respiratory effort (eg, intercostal retractions, use of accessory muscles, diaphragmatic movement) Auscultation of lungs (eg, breath sounds, adventitious sounds, rubs)
Cardiovascular	<ul style="list-style-type: none"> Auscultation of heart with notation of abnormal sounds and murmurs Examination of peripheral vascular system by observation (eg, swelling, varicosities) and palpation (eg, pulses, temperature, edema, tenderness)
Chest (Breasts)	[See genitourinary (female)]
Gastrointestinal (Abdomen)	<ul style="list-style-type: none"> Examination of abdomen with notation of presence of masses or tenderness Examination for presence or absence of hernia Examination of liver and spleen Obtain stool sample for occult blood test when indicated
Genitourinary	MALE:

System/Body Area	Elements of Examination
	<ul style="list-style-type: none"> • Inspection of anus and perineum <p>Examination (with or without specimen collection for smears and cultures) of genitalia including:</p> <ul style="list-style-type: none"> • Scrotum (eg, lesions, cysts, rashes) • Epididymides (eg, size, symmetry, masses) • Testes (eg, size, symmetry, masses) • Urethral meatus (eg, size, location, lesions, discharge) • Penis (eg, lesions, presence or absence of foreskin, foreskin retractability, plaque, masses, scarring, deformities) <p>Digital rectal examination including:</p> <ul style="list-style-type: none"> • Prostate gland (eg, size, symmetry, nodularity, tenderness) • Seminal vesicles (eg, symmetry, tenderness, masses, enlargement) • Sphincter tone, presence of hemorrhoids, rectal masses
Genitourinary (Cont'd)	<p>FEMALE:</p> <p>Includes at least seven of the following eleven elements identified by bullets:</p> <ul style="list-style-type: none"> • Inspection and palpation of breasts (eg, masses or lumps, tenderness, symmetry, nipple discharge) • Digital rectal examination including sphincter tone, presence of hemorrhoids, rectal masses <p>Pelvic examination (with or without specimen collection for smears and cultures) including:</p> <ul style="list-style-type: none"> • External genitalia (eg, general appearance, hair distribution, lesions) • Urethral meatus (eg, size, location, lesions, prolapse) • Urethra (eg, masses, tenderness, scarring) • Bladder (eg, fullness, masses, tenderness) • Vagina (eg, general appearance, estrogen effect, discharge, lesions, pelvic support, cystocele, rectocele)

System/Body Area	Elements of Examination
	<ul style="list-style-type: none"> • Cervix (eg, general appearance, lesions, discharge) • Uterus (eg, size, contour, position, mobility, tenderness, consistency, descent or support) • Adnexa/parametria (eg, masses, tenderness, organomegaly, nodularity) • Anus and perineum
Lymphatic	<ul style="list-style-type: none"> • Palpation of lymph nodes in neck, axillae, groin and/or other location
Musculoskeletal	
Extremities	
Skin	<ul style="list-style-type: none"> • Inspection and/or palpation of skin and subcutaneous tissue (eg, rashes, lesions, ulcers)
Neurological/ Psychiatric	<p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> • Orientation (eg, time, place and person) and • Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

At least twelve elements identified by a bullet.

Comprehensive

Perform all elements identified by a bullet; document every element in a box with a shaded border and at least one element in a box with an unshaded border.

Hematologic/Lymphatic/Immunologic Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> • Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) • General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	<ul style="list-style-type: none"> • Palpation and/or percussion of face with notation of presence or absence of sinus tenderness
Eyes	<ul style="list-style-type: none"> • Inspection of conjunctivae and lids
Ears, Nose, Mouth and Throat	<ul style="list-style-type: none"> • Otoscopic examination of external auditory canals and tympanic membranes • Inspection of nasal mucosa, septum and turbinates • Inspection of teeth and gums • Examination of oropharynx (eg, oral mucosa, hard and soft palates, tongue, tonsils, posterior pharynx)
Neck	<ul style="list-style-type: none"> • Examination of neck (eg, masses, overall appearance, symmetry, tracheal position, crepitus) • Examination of thyroid (eg, enlargement, tenderness, mass)
Respiratory	<ul style="list-style-type: none"> • Assessment of respiratory effort (eg, intercostal retractions, use of accessory muscles, diaphragmatic movement) • Auscultation of lungs (eg, breath sounds, adventitious sounds, rubs)
Cardiovascular	<ul style="list-style-type: none"> • Auscultation of heart with notation of abnormal sounds and murmurs • Examination of peripheral vascular system by observation (eg, swelling, varicosities) and palpation (eg, pulses, temperature, edema, tenderness)
Chest (Breasts)	
Gastrointestinal (Abdomen)	<ul style="list-style-type: none"> • Examination of abdomen with notation of presence of masses or tenderness

System/Body Area	Elements of Examination
	<ul style="list-style-type: none"> Examination of liver and spleen
Genitourinary	
Lymphatic	<ul style="list-style-type: none"> Palpation of lymph nodes in neck, axillae, groin, and/or other location
Musculoskeletal	
Extremities	<ul style="list-style-type: none"> Inspection and palpation of digits and nails (eg, clubbing, cyanosis, inflammation, petechiae, ischemia, infections, nodes)
Skin	<ul style="list-style-type: none"> Inspection and/or palpation of skin and subcutaneous tissue (eg, rashes, lesions, ulcers, ecchymoses, bruises)
Neurological/ Psychiatric	<p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> Orientation to time, place and person Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

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Comprehensive

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Musculoskeletal Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> • Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) • General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	
Ears, Nose, Mouth and Throat	
Neck	
Respiratory	
Cardiovascular	<ul style="list-style-type: none"> • Examination of peripheral vascular system by observation (eg, swelling, varicosities) and palpation (eg, pulses, temperature, edema, tenderness)
Chest (Breasts)	
Gastrointestinal (Abdomen)	
Genitourinary	
Lymphatic	<ul style="list-style-type: none"> • Palpation of lymph nodes in neck, axillae, groin and/or other location
Musculoskeletal	<ul style="list-style-type: none"> • Examination of gait and station <p>Examination of joint(s), bone(s) and muscle(s)/ tendon(s) of four of the following six areas: 1) head and neck; 2) spine, ribs and pelvis; 3) right upper extremity; 4) left upper extremity; 5) right lower extremity; and 6) left lower extremity. The examination of a given area includes:</p> <ul style="list-style-type: none"> • Inspection, percussion and/or palpation with notation of any misalignment, asymmetry, crepitation, defects, tenderness, masses or effusions

System/Body Area	Elements of Examination
	<ul style="list-style-type: none"> • Assessment of range of motion with notation of any pain (eg, straight leg raising), crepitation or contracture • Assessment of stability with notation of any dislocation (luxation), subluxation or laxity • Assessment of muscle strength and tone (eg, flaccid, cog wheel, spastic) with notation of any atrophy or abnormal movements <p>NOTE: For the comprehensive level of examination, all four of the elements identified by a bullet must be performed and documented for each of four anatomic areas. For the three lower levels of examination, each element is counted separately for each body area. For example, assessing range of motion in two extremities constitutes two elements.</p>
Extremities	[Sec musculoskeletal and skin]
Skin	<ul style="list-style-type: none"> • Inspection and/or palpation of skin and subcutaneous tissue (eg, scars, rashes, lesions, cafe-au-lait spots, ulcers) in four of the following six areas: 1) head and neck; 2) trunk; 3) right upper extremity; 4) left upper extremity; 5) right lower extremity; and 6) left lower extremity. <p>NOTE: For the comprehensive level, the examination of all four anatomic areas must be performed and documented. For the three lower levels of examination, each body area is counted separately. For example, inspection and/or palpation of the skin and subcutaneous tissue of two extremities constitutes two elements.</p>
Neurological/ Psychiatric	<ul style="list-style-type: none"> • Test coordination (eg, finger/nose, heel/ knee/shin, rapid alternating movements in the upper and lower extremities, evaluation of fine motor coordination in young children) • Examination of deep tendon reflexes and/or nerve stretch test with notation of pathological reflexes (eg, Babinski) • Examination of sensation (eg, by touch, pin, vibration, proprioception) <p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> • Orientation to time, place and person • Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

At least twelve elements identified by a bullet.

Comprehensive

Perform **all** elements identified by a bullet; document every element in a box with a shaded border and at least one element in a box with an unshaded border.

Neurological Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> • Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) • General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	<ul style="list-style-type: none"> • Ophthalmoscopic examination of optic discs (eg, size, C/D ratio, appearance) and posterior segments (eg, vessel changes, exudates, hemorrhages)
Ears, Nose, Mouth and Throat	
Neck	
Respiratory	
Cardiovascular	<ul style="list-style-type: none"> • Examination of carotid arteries (eg, pulse amplitude, bruits) • Auscultation of heart with notation of abnormal sounds and murmurs • Examination of peripheral vascular system by observation (eg, swelling, varicosities) and palpation (eg, pulses, temperature, edema, tenderness)
Chest (Breasts)	
Gastrointestinal (Abdomen)	
Genitourinary	
Lymphatic	
Musculoskeletal	<ul style="list-style-type: none"> • Examination of gait and station <p>Assessment of motor function including:</p>

System/Body Area	Elements of Examination
	<ul style="list-style-type: none"> • Muscle strength in upper and lower extremities • Muscle tone in upper and lower extremities (eg, flaccid, cog wheel, spastic) with notation of any atrophy or abnormal movements (eg, fasciculation, tardive dyskinesia)
Extremities	[See musculoskeletal]
Skin	
Neurological	<p>Evaluation of higher integrative functions including:</p> <ul style="list-style-type: none"> • Orientation to time, place and person • Recent and remote memory • Attention span and concentration • Language (eg, naming objects, repeating phrases, spontaneous speech) • Fund of knowledge (eg, awareness of current events, past history, vocabulary) <p>Test the following cranial nerves:</p> <ul style="list-style-type: none"> • 2nd cranial nerve (eg, visual acuity, visual fields, fundi) • 3rd, 4th and 6th cranial nerves (eg, pupils, eye movements) • 5th cranial nerve (eg, facial sensation, corneal reflexes) • 7th cranial nerve (eg, facial symmetry, strength) • 8th cranial nerve (eg, hearing with tuning fork, whispered voice and/or finger rub) • 9th cranial nerve (eg, spontaneous or reflex palate movement) • 11th cranial nerve (eg, shoulder shrug strength) • 12th cranial nerve (eg, tongue protrusion) <ul style="list-style-type: none"> • Examination of sensation (eg, by touch, pin, vibration, proprioception) • Examination of deep tendon reflexes in upper and lower extremities with notation of pathological reflexes (eg, Babinski) • Test coordination (eg, finger/nose, heel/knee/shin, rapid alternating movements in the upper and lower extremities, evaluation of fine motor coordination in young children)
Psychiatric	

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

At least twelve elements identified by a bullet.

Comprehensive

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Psychiatric Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	
Ears, Nose, Mouth and Throat	
Neck	
Respiratory	
Cardiovascular	
Chest (Breasts)	
Gastrointestinal (Abdomen)	
Genitourinary	
Lymphatic	
Musculoskeletal	<ul style="list-style-type: none"> Assessment of muscle strength and tone (eg, flaccid, cog wheel, spastic) with notation of any atrophy and abnormal movements Examination of gait and station
Extremities	
Skin	
Neurological	

System/Body Area	Elements of Examination
Psychiatric	<ul style="list-style-type: none"> • Description of speech including: rate; volume; articulation; coherence; and spontaneity with notation of abnormalities (eg, perseveration, paucity of language) • Description of thought processes including: rate of thoughts; content of thoughts (eg, logical vs. illogical, tangential); abstract reasoning; and computation • Description of associations (eg, loose, tangential, circumstantial, intact) • Description of abnormal or psychotic thoughts including: hallucinations; delusions; preoccupation with violence; homicidal or suicidal ideation; and obsessions • Description of the patient's judgment (eg, concerning everyday activities and social situations) and insight (eg, concerning psychiatric condition) <p>Complete mental status examination including</p> <ul style="list-style-type: none"> • Orientation to time, place and person • Recent and remote memory • Attention span and concentration • Language (eg, naming objects, repeating phrases) • Fund of knowledge (eg, awareness of current events, past history, vocabulary) • Mood and affect (eg, depression, anxiety, agitation, hypomania, lability)

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

At least nine elements identified by a bullet.

Comprehensive

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Respiratory Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	
Ears, Nose, Mouth and Throat	<ul style="list-style-type: none"> Inspection of nasal mucosa, septum and turbinates Inspection of teeth and gums Examination of oropharynx (eg, oral mucosa, hard and soft palates, tongue, tonsils and posterior pharynx)
Neck	<ul style="list-style-type: none"> Examination of neck (eg, masses, overall appearance, symmetry, tracheal position, crepitus) Examination of thyroid (eg, enlargement, tenderness, mass) Examination of jugular veins (eg, distension; a, v or cannon a waves)
Respiratory	<ul style="list-style-type: none"> Inspection of chest with notation of symmetry and expansion Assessment of respiratory effort (eg, intercostal retractions, use of accessory muscles, diaphragmatic movement) Percussion of chest (eg, dullness, flatness, hyperresonance) Palpation of chest (eg, tactile fremitus) Auscultation of lungs (eg, breath sounds, adventitious sounds, rubs)
Cardiovascular	<ul style="list-style-type: none"> Auscultation of heart including sounds, abnormal sounds and murmurs Examination of peripheral vascular system by observation (eg, swelling, varicosities) and palpation (eg, pulses, temperature, edema, tenderness)

System/Body Area	Elements of Examination
Chest (Breasts)	
Gastrointestinal (Abdomen)	<ul style="list-style-type: none"> • Examination of abdomen with notation of presence of masses or tenderness • Examination of liver and spleen
Genitourinary	
Lymphatic	<ul style="list-style-type: none"> • Palpation of lymph nodes in neck, axillae, groin and/or other location
Musculoskeletal	<ul style="list-style-type: none"> • Assessment of muscle strength and tone (eg, flaccid, cog wheel, spastic) with notation of any atrophy and abnormal movements • Examination of gait and station
Extremities	<ul style="list-style-type: none"> • Inspection and palpation of digits and nails (eg, clubbing, cyanosis, inflammation, petechiae, ischemia, infections, nodes)
Skin	<ul style="list-style-type: none"> • Inspection and/or palpation of skin and subcutaneous tissue (eg, rashes, lesions, ulcers)
Neurological/ Psychiatric	<p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> • Orientation to time, place and person • Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

Perform and Document:

Problem Focused

One to five elements identified by a bullet.

Expanded Problem Focused

At least six elements identified by a bullet.

Detailed

At least twelve elements identified by a bullet.

Comprehensive

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Skin Examination

System/Body Area	Elements of Examination
Constitutional	<ul style="list-style-type: none"> Measurement of any three of the following seven vital signs: 1) sitting or standing blood pressure, 2) supine blood pressure, 3) pulse rate and regularity, 4) respiration, 5) temperature, 6) height, 7) weight (May be measured and recorded by ancillary staff) General appearance of patient (eg, development, nutrition, body habitus, deformities, attention to grooming)
Head and Face	
Eyes	<ul style="list-style-type: none"> Inspection of conjunctivae and lids
Ears, Nose, Mouth and Throat	<ul style="list-style-type: none"> Inspection of lips, teeth and gums Examination of oropharynx (eg, oral mucosa, hard and soft palates, tongue, tonsils, posterior pharynx)
Neck	<ul style="list-style-type: none"> Examination of thyroid (eg, enlargement, tenderness, mass)
Respiratory	
Cardiovascular	<ul style="list-style-type: none"> Examination of peripheral vascular system by observation (eg, swelling, varicosities) and palpation (eg, pulses, temperature, edema, tenderness)
Chest (Breasts)	
Gastrointestinal (Abdomen)	<ul style="list-style-type: none"> Examination of liver and spleen Examination of anus for condyloma and other lesions
Genitourinary	
Lymphatic	<ul style="list-style-type: none"> Palpation of lymph nodes in neck, axillae, groin and/or other location
Musculoskeletal	
Extremities	<ul style="list-style-type: none"> Inspection and palpation of digits and nails (eg, clubbing, cyanosis, inflammation, petechiae, ischemia, infections, nodes)
	<ul style="list-style-type: none"> Palpation of scalp and inspection of hair of scalp, eyebrows, face, chest, pubic area

System/Body Area	Elements of Examination
Skin	<p>(when indicated) and extremities</p> <ul style="list-style-type: none"> • Inspection and/or palpation of skin and subcutaneous tissue (eg, rashes, lesions, ulcers, susceptibility to and presence of photo damage) in four of the following five areas: 1) head and neck; 2) chest, breasts, and back; 3) abdomen; 4) genitalia; and 5) extremities <p>NOTE: For the comprehensive level, the examination of all four anatomic areas must be performed and documented. For the three lower levels of examination, each body area is counted separately. For example, inspection and/or palpation of the skin and subcutaneous tissue of the head and neck and extremities constitutes two areas.</p> <ul style="list-style-type: none"> • Inspection of eccrine and apocrine glands of skin and subcutaneous tissue with identification and location of any hyperhidrosis, chromhidroses or bromhidrosis
Neurological/ Psychiatric	<p>Brief assessment of mental status including</p> <ul style="list-style-type: none"> • Orientation to time, place and person • Mood and affect (eg, depression, anxiety, agitation)

Content and Documentation Requirements

Level of Exam

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Expanded Problem Focused

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C. DOCUMENTATION OF THE COMPLEXITY OF MEDICAL DECISION MAKING

The levels of E/M services recognize four types of medical decision making (straight-forward, low complexity, moderate complexity and high complexity). Medical decision making refers to the complexity of establishing a diagnosis and/or selecting a management option as measured by:

- the number of possible diagnoses and/or the number of management options that must be considered;
- the amount and/or complexity of medical records, diagnostic tests, and/or other information that must be obtained, reviewed and analyzed; and
- the risk of significant complications, morbidity and/or mortality, as well as comorbidities, associated with the patient's presenting problem(s), the diagnostic procedure(s) and/or the possible management options.

The chart below shows the progression of the elements required for each level of medical decision making. To qualify for a given type of decision making, **two of the three elements in the table must be either met or exceeded.**

Number of diagnoses or management options	Amount and/or complexity of data to be reviewed	Risk of complications and/or morbidity or mortality	Type of decision making
Minimal	Minimal or None	Minimal	<i>Straightforward</i>
Limited	Limited	Low	<i>Low Complexity</i>
Multiple	Moderate	Moderate	<i>Moderate Complexity</i>
Extensive	Extensive	High	<i>High Complexity</i>

Each of the elements of medical decision making is described below.

NUMBER OF DIAGNOSES OR MANAGEMENT OPTIONS

The number of possible diagnoses and/or the number of management options that must be considered is based on the number and types of problems addressed during the encounter, the complexity of establishing a diagnosis and the management decisions that are made by the physician.

Generally, decision making with respect to a diagnosed problem is easier than that for an identified but undiagnosed problem. The number and type of diagnostic tests employed may be an indicator of the number of possible diagnoses. Problems which are improving or resolving are less complex than those which are worsening or failing to change as expected. The need to seek advice from others is another indicator of complexity of diagnostic or management problems.

- DG:** *For each encounter, an assessment, clinical impression, or diagnosis should be documented. It may be explicitly stated or implied in documented decisions regarding management plans and/or further evaluation.*
 - *For a presenting problem with an established diagnosis the record should reflect whether the problem is: a) improved, well controlled, resolving or resolved; or, b) inadequately controlled, worsening, or failing to change as expected.*
 - *For a presenting problem without an established diagnosis, the assessment or clinical impression may be stated in the form of differential diagnoses or as a "possible", "probable", or "rule out" (R/O) diagnosis.*
- DG:** *The initiation of, or changes in, treatment should be documented. Treatment includes a wide range of management options including patient instructions, nursing instructions, therapies, and medications.*
- DG:** *If referrals are made, consultations requested or advice sought, the record should indicate to whom or where the referral or consultation is made or from whom the advice is requested.*

AMOUNT AND/OR COMPLEXITY OF DATA TO BE REVIEWED

The amount and complexity of data to be reviewed is based on the types of diagnostic testing ordered or reviewed. A decision to obtain and review old medical records and/or obtain history from sources other than the patient increases the amount and complexity of data to be reviewed.

Discussion of contradictory or unexpected test results with the physician who performed or interpreted the test is an indication of the complexity of data being reviewed. On occasion the physician who ordered a test may personally review the image, tracing or specimen to supplement information from the physician who prepared the test report or interpretation; this is another indication of the complexity of data being reviewed.

- DG:** *If a diagnostic service (test or procedure) is ordered, planned, scheduled, or performed at the time of the E/M encounter, the type of service, eg, lab or x-ray, should be documented.*
- DG:** *The review of lab, radiology and/or other diagnostic tests should be documented. A simple notation such as "WBC elevated" or "chest x-ray unremarkable" is acceptable. Alternatively, the review may be documented by initialing and dating the report containing the test results.*
- DG:** *A decision to obtain old records or decision to obtain additional history from the family, caretaker or other source to supplement that obtained from the patient should be documented.*
- DG:** *Relevant findings from the review of old records, and/or the receipt of additional history from the family, caretaker or other source to supplement that obtained from the patient should be documented. If there is no relevant information beyond that already obtained, that fact should be documented. A notation of "Old records reviewed" or "additional history obtained from family" without elaboration is insufficient.*
- DG:** *The results of discussion of laboratory, radiology or other diagnostic tests with the physician who performed or interpreted the study should be documented.*
- DG:** *The direct visualization and independent interpretation of an image, tracing or specimen previously or subsequently interpreted by another physician should be documented.*

RISK OF SIGNIFICANT COMPLICATIONS, MORBIDITY, AND/OR MORTALITY

The risk of significant complications, morbidity, and/or mortality is based on the risks associated with the presenting problem(s), the diagnostic procedure(s), and the possible management options.

- DG:** *Comorbidities/underlying diseases or other factors that increase the complexity of medical decision making by increasing the risk of complications, morbidity, and/or mortality should be documented.*
- DG:** *If a surgical or invasive diagnostic procedure is ordered, planned or scheduled at the time of the E/M encounter, the type of procedure, eg, laparoscopy, should be documented.*
- DG:** *If a surgical or invasive diagnostic procedure is performed at the time of the E/M encounter, the specific procedure should be documented.*
- DG:** *The referral for or decision to perform a surgical or invasive diagnostic procedure on an urgent basis should be documented or implied.*

The following table may be used to help determine whether the risk of significant complications, morbidity, and/or mortality is *minimal*, *low*, *moderate*, or *high*. Because the determination of risk is complex and not readily quantifiable, the table includes common clinical examples rather than absolute measures of risk. The assessment of risk of the presenting problem(s) is based on the risk related to the disease process anticipated between the present encounter and the next one. The assessment of risk of selecting diagnostic procedures and management options is based on the risk during and immediately following any procedures or treatment. **The highest level of risk in any one category (presenting problem(s), diagnostic procedure(s), or management options) determines the overall risk.**

TABLE OF RISK

<i>Level of Risk</i>	Presenting Problem(s)	Diagnostic Procedure(s) Ordered	Management Options Selected
<i>Minimal</i>	<ul style="list-style-type: none"> One self-limited or minor problem, eg, cold, insect bite, tinea corporis 	<ul style="list-style-type: none"> Laboratory tests requiring venipuncture Chest x-rays EKG/EEG Urinalysis Ultrasound, eg, echocardiography KOH prep 	<ul style="list-style-type: none"> Rest Gargles Elastic bandages Superficial dressings
<i>Low</i>	<ul style="list-style-type: none"> Two or more self-limited or minor problems One stable chronic illness, eg, well controlled hypertension, non-insulin dependent diabetes, cataract, BPH Acute uncomplicated illness or injury, eg, cystitis, allergic rhinitis, simple sprain 	<ul style="list-style-type: none"> Physiologic tests not under stress, eg, pulmonary function tests Non-cardiovascular imaging studies with contrast, eg, barium enema Superficial needle biopsies Clinical laboratory tests requiring arterial puncture Skin biopsies 	<ul style="list-style-type: none"> Over-the-counter drugs Minor surgery with no identified risk factors Physical therapy Occupational therapy IV fluids without additives
<i>Moderate</i>	<ul style="list-style-type: none"> One or more chronic illnesses with mild exacerbation, progression, or side effects of treatment Two or more stable chronic illnesses Undiagnosed new problem with uncertain prognosis, eg, lump in breast Acute illness with systemic symptoms, eg, pyelonephritis, pneumonitis, colitis Acute complicated injury, eg, head injury with brief loss of consciousness 	<ul style="list-style-type: none"> Physiologic tests under stress, eg, cardiac stress test, fetal contraction stress test Diagnostic endoscopies with no identified risk factors Deep needle or incisional biopsy Cardiovascular imaging studies with contrast and no identified risk factors, eg, arteriogram, cardiac catheterization Obtain fluid from body cavity, eg lumbar puncture, thoracentesis, culdocentesis 	<ul style="list-style-type: none"> Minor surgery with identified risk factors Elective major surgery (open, percutaneous or endoscopic) with no identified risk factors Prescription drug management Therapeutic nuclear medicine IV fluids with additives Closed treatment of fracture or dislocation without manipulation
<i>High</i>	<ul style="list-style-type: none"> One or more chronic illnesses with severe exacerbation, progression, or side effects of treatment Acute or chronic illnesses or injuries that pose a threat to life or bodily function, eg, multiple trauma, acute MI, pulmonary embolus, severe respiratory distress, progressive severe rheumatoid arthritis, psychiatric illness with potential threat to self or others, peritonitis, acute renal failure An abrupt change in neurologic status, eg, seizure, TIA, weakness, sensory loss 	<ul style="list-style-type: none"> Cardiovascular imaging studies with contrast with identified risk factors Cardiac electrophysiological tests Diagnostic Endoscopies with identified risk factors Discography 	<ul style="list-style-type: none"> Elective major surgery (open, percutaneous or endoscopic) with identified risk factors Emergency major surgery (open, percutaneous or endoscopic) Parenteral controlled substances Drug therapy requiring intensive monitoring for toxicity Decision not to resuscitate or to de-escalate care because of poor prognosis

D. DOCUMENTATION OF AN ENCOUNTER DOMINATED BY COUNSELING OR COORDINATION OF CARE

In the case where counseling and/or coordination of care dominates (more than 50%) of the physician/patient and/or family encounter (face-to-face time in the office or other or outpatient setting, floor/unit time in the hospital or nursing facility), time is considered the key or controlling factor to qualify for a particular level of E/M services.

- DG:** *If the physician elects to report the level of service based on counseling and/or coordination of care, the total length of time of the encounter (face-to-face or floor time, as appropriate) should be documented and the record should describe the counseling and/or activities to coordinate care.*



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